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Plurality in Dhaka Colloquial Bangla: Exploring the Functionality of –gulo and –ra

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ABSTRACT

This paper describes the plural category of Bangla based on field data from Bangladeshi consultants concerning the functionality of –gulo and –ra, – the bare nominal vs. plurality marked NPs, definiteness of plurality, the function of plurality in correlative clauses and plural references in various contexts – and also explains how the uses of those markers are obligatory or optional in different arguments in Dhaka colloquial Bangla (DCB). While the bare nominals are frequently used in intransitive clauses, taking –gulo or –ra with the subject/agent, the object/patient of a transitive clause often drop plural marker for a plural interpretation. Bangla post position requires adding a definite –gulo along with the case marker to the object for encoding the plurality. However, the use of associative –ra, definite –gulo and bare NPs is semantically and syntactically optional in DCB. –ra is seen optional regarding kinds, sub-kinds and generic sentences, even –gulo marked nouns are also used in these contexts. In case of correlatives, plural markers are attached to the complementizer of the main clause or the third-person pronoun of the relative clause, and they can also be added to the nouns of the main and relative clauses. Although –gulo and –ra marked NPs function as anaphoric references and bridging cross-references, plural suffixed NPs or bare NPs are accepted in visual plural references. The bare noun patterns occur in global uniques for plural references, whereas the use of –gulo marked NP and bare NP is optional in situational uniques.

1. Introduction

This paper is a descriptive study of Bangla plural system focusing on the spoken colloquial variety of Bangladeshi Bangla, also identified as Dhaka Colloquial Bangla (DCB) (David, 2015). While –gulo and –ra both markers are generally considered as plural classifiers (Chatterji 1926, Dasgupta 1983, 1985, Bhattacharya 1999, 2001, Ghosh 2010, Dayal 2014); the former has been treated as additive plural, whereas it has been observed that the latter adds an associative value (Chacón 2011, Biswas, 2013) regarding plural interpretation in all varieties of Bangla, in particular DCB as well as Kolkata Colloquial Bangla (KCB) (David, 2015).

While as per Chierchia's (1998) cross-linguistic insights plurality is generally expressed through combining classifiers and numerals in classifier languages, Bangla –gulo does not co-occur with a numeral and a classifier regardless of its variety, whereas, –ra co-occurs with a numeral and a classifier. Thus, Bangla contains a particular system of plurality in which two morphemes are functioned for plural interpretation, in addition, those two morphemes present quite different types of plurality. However, –gulo generally attaches with nouns denoting animate and inanimate entities, whereas –ra only combines with animate (with human animate in most of the cases).

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Moreover, it has been seen that the NP object shift (Bhattachaya, 1999) or the NP fronting (Dasgupta 1983, Ghosh 2010, Chacón, 2011, Dayal, 2014) has been associated with specificity and definiteness in Bangla. Even though NP inversion (the NP moves across the numeral classifier to the specifier of DP) is essential for both –gulo and –ra nominal- the former indicates the definiteness and the inversion does not result in a strong definite interpretation in the case of the later.

This study focuses not only on exploring the functionality of –gulo and –ra but also on comprehending to what extent the use of those markers is obligatory or optional in DCB. Consequently, it includes some core phenomena of the Bangla plural category- the bare nominals vs. plurality marked NPs, definiteness of plurality, the function of plurality in correlative clauses, and plural references in different contexts. To elaborate, first, attention has not been paid yet to how Bangla nominals are marked by plural categories relating to various arguments- how does transitivity encode this category in Bangla? To answer this question this study explores whether the DCB speakers use plural markers optionally or mandatorily in different arguments. Second, this study takes a look at definite plural functionality. In this case, it explains how the definite plural marker –gulo works in different arguments and oblique as well- what requires having a mandatory –gulo with them and what makes it possible to use it optionally. Third, since the plurality of Bangla in multiple-clause constructions has not yet been focused on, this study describes how definite plurality functions in correlatives. Fourth, although Bangla speakers prefer to use bare classifiers instead of bare nouns for definite references in different contexts- in particular anaphoric references, bridging cross-reference, visible reference and non-anaphoric references- this study is interested in the plural references of those contexts.

1.2. *The basics of Bangla plurality*

The plurality of Bangla is generally encoded by the interactions of the several nominal categories- number, classifier, definiteness and case. The plural category surfaces in this language through some morpho-syntactic processes.

1.2.1. Bare nouns pattern

Bangla nouns often not only take any classifier but also drop the indefinite singular classifier and numerals (e.g. Ekta, Ekkhana, -jon etc.), which sometimes convey plural sense. In addition, these types of noun phrases also express definiteness. For example,

(1)	Singular	plural
(a)	boi-Ta book-CLF “The book”	boi-Ø book-PL “books”
(b)	Ek-Ta kukur one-CLF dog “A dog”	kukur-Ø dog-PL “dogs”
(c)	lok-Ta man-CLF “The man”	lok-Ø man “people”

In fact, Bangla follows Chierchia's (1998) remarks on bare nominal arguments regarding classifier languages, which denote that these types of languages generally allow bare arguments; in other words, these arguments indicate kind terms (Krifka, 1995; Dayal, 2014). For example,

- (2) a) jatayat-er SOhoj maddhom holo gaRi-Ø
 transport-GEN convenient means be car-PL
 "Cars are a convenient mode of transportation"

(Dayal, 2014)

- b) bas-Ø-er theke Tren-Ø-e jao-wa Onek aramdayok
 bus-PL-GEN from train-PL-LOC go-VN more comfortable
 "It is more comfortable to travel by trains than buses"

In those examples, it is beyond doubt that gaRi, bas and Tren are accepted as well as denoted at the kind levels. Consequently, these kind terms are also accepted in generic statements.

- (3) a) ei stOpej-e gaRi-Ø thame na
 this stoppage-LOC car-PL stop NEG
 "Cars do not stop at this stoppage"

- b) haiwe-te saikel-Ø calan-o muSkil
 highway-LOC cycle-PL ride-VN difficult
 "Riding cycles on the highway is difficult"

Moreover, Bangla bare nouns have existential import in episodic statements (Dayal, 2014). Such as,

- (4) a) gOtorat-e ei rasta-e kukur-Ø dekhe-ch-il-am
 last night-LOC this street-LOC dog-PL see.PRF-PRF-PST-
 "I saw dogs on this street last night"

- b) gOto boimEla-e boi-Ø kine-ch-il-am
 last book fair-LOC books buy.PRF-PRF-PST-1
 "I bought books from the last book fair"

In the above examples, kukur and boi have a weak indefinite reading and the existential is associated with the bare nominal.

In section 3, the bare nominal pattern has been explained on the basis of our field data including various contexts of plural references.

1.2.2. Attaching bound morphemes

In most of the cases in Bangla the plurality is functioned by adding plural markers or classifiers, such as -gulo/-gula/-guli and -ra to different word class categories- noun, pronoun, adjective and quantifier, which may have two separate semantic values like, additive and associative.

Since -gulo and -ra have been frequently used by the consultants in their DCB natural conversations of this study, the examples are shown by using those markers.

For example, (5)

Noun with plural markers	Pronoun with plural makers	Adjective with plural markers
a. apel-gulo apple-PL “Apples”	a. amra “we”	a. Sundor-gulo beautiful-PL “The beautiful ones”
b. ghoRa-gulo horse-PL “Horses”	b. tara “they”	b. bORo-gulo big-PL “The big ones”
c. lok-gulo man-PL “People”	c. amar-gulo my-PL “My ones”	c. pOca-gulo totten-PL “The rotten ones”
d. mohila-ra woman-PL “Women”	d. tomar-gulo your-PL “Your ones”	
e. cainij-ra Chinese-PL “Chinese people”		

Although both –gulo and –ra have plural readings they function differently by including animacy, humanness, definiteness and kind terms (which have been discussed in section 3). In other words, they are different in their syntactic distribution and semantic interpretation. According to Biswas (2013), “-gulo is a plural number marker, specified for [+plural] and merged in the NumP whereas, -ra is a functional head located above DP, responsible for associative interpretation” (p.10). In section 3, the functionality of those markers is explained by observing DCB field data for this study.

1.2.3. In(definite) function of plurality

Although Bangla bare nouns express plural sense they do not have any definite interpretation, rather they can indicate kind denoting terms (Dayal, 2014), Such as in example (3) (a), gaRi represents vehicles which not only indicates plural sense but it has also a kind level term and indefinite value of expression as well. However, Bangla does not have any definite determiner and, this is a typical phenomenon of a classifier language. Since Bangla bare nominals do not have definite interpretations, it is different from other classifier languages, such as Mandarin and Cantonese- which requires the projection of classifiers to express definiteness (Cheng and Sybesma, 1999). Contrary to those languages, in the case of Bangla, it is necessary to have a syntactic movement of NP to have a definite reading. For instance,

(6) a) Tebil-er upor paMc-Ta Sobuj kOlom ach-Ø-e
table-GEN on five-CL green pens be-PRS-3INFR
“There are five green pens on the table”

b) Tebil-er upor ei Sobuj kOlom paMc-Ta ach-Ø-e
table-GEN on this green pens five-CL be-PRS-3INFR

“These five green pens are on the table”

Following Bhattacharya (1999) and Dayal (2014), (a) is supposed to be considered as the base structure and, the word order of (b) has been produced by subsequent NP raising. It is noteworthy that the word order of (a) infers weak as well as strong indefinite reading, on the other hand, NP raised order expresses the definite interpretation. However, demonstratives and possessors may optionally precede numerals, classifiers and NPs.

(7) a) Tebil-er upor (amar) (ei) paMc-Ta Sobuj kOlom ach-Ø-e
 table-GEN on my this five-CL green pens be-PRS-3INFR
 “These five green pens on the table are mine”

b) Tabil-er upor (amar) (ei) Sobuj kOlom paMc-Ta ach-Ø-e
 table-GEN on my this green pens five-CL be-PRS-3INFR
 “These green five pens on the table are mine”

Similarly, it is also evident in the above examples that even though there are demonstrative and possessors, unless NP raising definite interpretation is not possible to generate. To have a precise idea about in(definiteness) of Bangla plurality, this category has been discussed regarding the functionality of –gulo and –ra.

1.2.3.1. Definiteness of –gulo

In the case of –gulo, it contains both plural as well as definite categories. The definite interpretations of the nouns with –gulo are categorized as strong definite (Simpson et al., 2011; Biswas, 2013). It is also claimed in the previous study (Dayal, 2014) that –gulo is a plural counterpart of the singular definite classifier –Ta. Similar to the functionality of –ra, the definite interpretations of the nouns with –gulo not only convey plural reading but they also have explicit anaphoric references.

(8) gOtokal nilkhet theke kichu purano boi kine-ch-Ø-i
 yesterday Nilkhet from some old book buy.PRF-PRF-PRS-1

boi-gulo khub rare
 book-PL very rare

“I bought some old books from Nilkhet yesterday. The books are very rare.”

In this example, the plural definite boi-gulo in the second sentence refers back to the antecedent boi of the first sentence. The –gulo marked NPs are compatible with predicates with distributive sub-entailments (Biswas, 2013). Thus the compatibility of –gulo with the predicates which lack distributive sub-entailment may not be acceptable.

(9) a) chatro-gulo klas-e aS-l-o
 Student-PL class-LOC come-PST-3.INFR
 “The students came to the class”

b) * chatro-gulo car-jon-er dOl
 student-PL four-CL-GEN group
 “The group of four students”

Compared to English, it can be said that Bangla –gulo is similar to English –s since both have distributive and collective reading with all predicates (Biswas, 2013). Considering activities, accomplishment, state and achievement, some sentences are given below,

- (10) a) chele-gulo balu nie khel-ch-Ø- e
 boy-PL sand with play.IPF-IPF-PRES-1
 “The boys are playing with sand”
- b) bacca-gulo balu-r praSad-Ø banie-ch-Ø-e
 child-PL sand castle-PL make.PFR-PRF-PRS-3.INFR
 “The children have made castles of sand”
- c) bacca-gulo Onek lOmba
 child-PL very tall
 “The children are very tall”
- d) chatro-gulo porikkha-e bhalo kore-ch-Ø-e
 student-PL exam-LOC good do.PRF-PRF-PRS-3.INFR
 “The students have done well in the exam”

It is noted that both Bangla and English translations of the examples contain distributive and collective reading in all predicates. However, according to Biswas (2013), “when –gulo attaches to a quantifier that is underspecified for count or mass, it triggers a mandatory plural agreement on the bound variable (6)”. To elaborate, while singular and plural pronouns can be bound by the bare classifier, –gulo marked quantifier must be bound with a plural pronoun.

- (11) a) Onek chele tar/tader lEpTOp ene-ch-Ø-e
 many boys their laptop bring.PRF-PRF-PRS-3.INFR
 “Many boys have brought their laptops”

(Biswas, 2013)

- b) Onek-gulo chele *tar/tader lEpTOp ene-ch-Ø-e
 many boys their laptop bring.PRF-PRF-PRS-3.INFR
 “Many boys have brought their laptops”

However, DCB speakers do not say [Onek chele tar lEpTOp ene-ch-e]. Since the quantifier Onek itself conveys a plural expression, tader must be bound in example (a).

1.2.3.2. Indefiniteness of –gulo

Since it is already established that the definiteness requires an obvious NP movement; if the raises do not happen, a –gulo marked phrase might have an indefinite interpretation. However, it is also noteworthy that there is an interaction between the plural quantifier and –gulo. The plural quantifier modifies the quantity of nouns. When a quantifier is added before a noun an indefinite sense is created.

- (12) a) Onek chele-meye
 many boys-girls
 “Many boys and girls”
- b) kOyek-Ti apel

few-CLA apple
 “Few apples”

c) beS kichu chagol
 good some goat
 “A good amount of goats”

-gulo can be added with the quantifiers, in particular with “Onek”, “Sob” and “kOto”.

(13) a) amar Onek bondhu-Ø ach-Ø-e
 my many friend-PL be-PRS-3INFR
 “I have many friends”

b) *amar SOb-gulo bondhu ach-Ø-e
 my all-PL friend be-PRS-3INFR
 “I have all my friends”

c) amar Onek-gulo bondhu bideS col-e gE-ch-Ø-e
 my many-PL friend abroad go-PRFP go.PRF-PRF-PRS-3INFR
 “Many of my friends have gone abroad”

d) amar SOb-gulo bondhu bideS col-e gE-ch-Ø-e
 my all-PL friend abroad go-PRFP go.PRF-PRF-PRS-3INFR
 “All my friends have gone abroad”

e) Tebil-er upor kOto-gulo am-Ø ach-Ø-e
 table-GEN on few-PL mangoes be-PRS-3INFR
 “There are some mangoes on the table”

f) Tebil-er upor SOb-gulo am-Ø ach-Ø-e
 table-GEN on all-PL mangoes be-PRS-3INFR
 “All the mangoes are on the table”

From the above examples, in (a) and (b), it is observed that –gulo marked quantifier SOb-gulo does not modify human nouns in the construction with existential ach verb. Other than that –gulo can be attached to the rest of the quantifiers regardless of animacy, humanness and transitivity. It is also evident that –gulo marked NP functions like –ta marked NP. Thus, it can be considered a counterpart of –ta in this case; though as per Dayal (2014) –gulo phrases are not necessarily like –ta.

(14) a) amar bhai-gulo bideS col-e gE-ch-Ø-e
 my brother-PL abroad go-PRFP go.PRF-PRF-PRS-3INFR
 “All my brothers have gone abroad”

b) amar bhai-Ta col-e gE-ch-Ø-e
 my brother-CL go-PRFP go.PRF-PRF-PRS-3INFR
 “My brother has gone away”

It is seen that identical syntactic structure is followed by –Ta and –gulo in the examples of (14). In a previous study (Biswas, 2013) –gulo is considered to be restricted to only count nouns and the 3rd person non-human pronouns. However, it never appears with the numeral classifiers.

(15) a) chatro-gulo
student-PL
“Students”

b) apel-gulo
apple-PL
“Apples”

c) pani-gulo
water-PL
“Waters”

d) Se-gulo
3SG-PL
“They”

Nevertheless, it has been mentioned in section 1.2.2. that we can add –gulo with the possessive pronouns such as, amar-gulo.

1.2.3.3. –gulo marked reference and kind terms

Since –gulo is a plural counterpart of –ta and the definite aspect is the most prominent of its characteristics, it is unacceptable to attach it to the phrases which have kind-level predicates and, as a consequence, it cannot be added to the phrases which occur in generic constructions as well.

(16) a) * kENgaru-gulo baNladeS-er prani nOy
kangaroo-PL Bangladesh-GEN animal NEG
“The kangaroos are not Bangladeshi animal”

b) *uT pakhi-r Dim-gulo ekhan-e paow-a jay na
ostrich bird-GEN egg-PL here-LOC get-VN go NEG
“The ostrich eggs cannot be found here”

In example (16), the –gulo marked nominal must refer back to the contextual entity or an antecedent. For this reason, it is unacceptable to have definite plurality with regards to the kind level predications. However, they can refer to contextual sub-kinds for providing taxonomic reading. Such as,

(17) lal ThoT-er Tia pakhi-gulo ar dEkh-a ja-Ø-e na
red beak-GEN parrot bird-PL anymore see-VN go-PRS-3.INFR NEG
“The parrots with red beaks cannot be seen anymore”

1.2.3.4. –gulo with mass noun

Considering count nouns Dayal (2014) analyzed –ta as a set of atoms and, -gulo as a set of non-atoms. In classifier languages, the distinction between mass and count is very significant (Cheng & Sybesma, 1999) whereas, in Bangla, this aspect is not very sensitive.

(18) oi Tebil-e pani ach-Ø-e. pani-gulo mehoman-der d-ao

that table-LOC water be-PRS-3INFR water-PL guest-GEN.PL give-2.IMP.INFR
 “There are waters on that table. Give those waters to the guests” (literal meaning)
 “There is water on the table. Give water to the guests.” (actual meaning)

In this example, the second sentence has a mass noun *pani* with a definite interpretation which refers back to the antecedent of the first sentence that obviously indicates plural sense of the noun. However, if we use *-Ta* with *pani* in the second sentence; the same amount of water would even be there on the table. It also needs to be noted that since *pani* of the first sentence is a bare noun, it could be either singular or plural sense of entity. Thus if we use *-ta* with the direct object of the second sentence, the antecedent would be the singular. On the other hand, the antecedent would be plural if the indirect object of the second sentence takes *-gulo*. However, using a numeral before the noun would create a definite value and, in this case *-ta* is only acceptable with the indirect object of the second sentence. For instance,

- (19) Tebil-e Ek baTi mach-Ø ach-Ø-e. mach-Ta/mach-gulo gOrom d-ao
 table-LOC one bowl fishes be-PRS-3INFR fish-CL/fish-PL warm
 give-2.IMP.INFR
 “There is one bowl of fish on the table. Warm up the fish”

1.2.4. Function of *-ra*

-ra is a number neutral plural marker which mostly restricted to human nouns, proper names and pronouns, moreover, it can also co-occur with numerals and classifiers when NP appears in an inverted order (Bhattacharya, 1999 Chacon 2011, Biswas, 2013). In some studies both *-gulo* and *-ra* are considered plural classifiers (Bhattacharya, 1999; Gosh, 2010; Dayal, 2014), whereas *-ra* has been argued to be a noun marker (Dasgupta, 1983; Thompson, 2010), and an associative plural (Chacon, 2011; David, 2016). Although *-gulo* and *-ra* share the same syntactic structures they are different in their semantics.

- (20) a) chatro-ra kOlom-Ø nie gE-ch-Ø-e
 Student-PL pen-PL take go.PRF-PRF-PRS-3.INFR
 “The students have taken pens”
 b) {am-/tom-}-ra aS-b-o/aS-b-e
 {1/2}-PL come-FUT-1/come-FUT-2.INFR
 “We/you all will come”
 c) ta-ra aS-b-e
 3-PL come-FUT-3.INFR
 “They will come”
 c) robin-ra bERat-e gE-ch-Ø-e
 Robin-PL travel-LOC go.PRF-PRF-PRS-3.INFR
 “Robin and others have gone for travelling”
 d) bacca-ra tin-jOn boS-e ach-Ø-e
 child-PL three-CL sit-3 be-PRS-3INFR
 “The three children are sitting”

It is observed that while –gulo can turn the kind-denoting bare nominal to predicates of non-atomic object level individuals (see section 1.2.3.3), -ra can have an identity function on animate kind terms. Cross-linguistic studies (Chacon, 2011; Biswas, 2013) have also found that –ra shares several properties of the associative categories of classifier languages.

1.2.4.1. –ra with kind terms

-ra marked phrases can be predicated to function as kind terms unlike –gulo. As a consequence, just like bare nominal (see section 1.2.1), a –ra marked nominal not only works as an argument of the kind level predicate but also is accepted in generic statements.

(21) a) dhaka-e kak-Ø/kak-ra pray bilupto

Dhaka-LOC crow-PL/crow-PL almost extinct

“Crows are almost extinct in Dhaka”

b) biRal-Ø/biRal-ra mach-Ø pOchondo kOr-Ø-e

cat-PL/cat-PL fishe-PL like do-PRS-3.INFR

“Cats like fish”

c) ODiToriam theke manuS-Ø/manuS-ra ber ho-e ja-cch-Ø-e

auditorium from people-PL/people-PL exit become-PRFP go.IPF-IPF-PRS-3.INFR

“The people are leaving the auditorium”

d) jele-Ø/jele-ra mach-Ø dhor-ch-Ø-e

fishermen fish-PL catch.IPF-IPF-PRES-3.INFR

“The fishermen are catching fish.”

In the above examples, it is evident that –ra marked phrases can function as kind terms as well as they can take subject positions in generic sentences.

Furthermore, in one study (Mukherjee, 2022) it is shown that the existence of plural classifier (-ra) is unaccepted in generic sentences when the animate NP (both human and non-human) taking the subject position refers to an entire class/kind of species, nevertheless, the use of –ra is mandatory in case of the particular subset of the kind. However, in order to have collective reading –ra dropping is also possible regarding non-human animate nouns.

(23) a) biRal-ra mach-Ø pOchondo kOr-Ø-e

Cat-PL fishe-PL like do-PRS-3.INFR

“The cats like fishes”

b) parsian biRal-ra Olos hO-Ø-e

Persian cat-PL lazy become-PRS-3INFR

“The Persian cats are lazy”

c) ei rasta-e manuS-Ø haMt-Ø-e na

This street-LOC people walk-PRS-3.INFR NEG

“People do not walk on this street”

Nevertheless, -ra can function optionally in the case of (a) and (b). Thus, we can say without –ra by using bare NP such as, [parsian biRal OloS hO-Ø-e]. Similarly, we can say [biRal mach-Ø

pOchondo kOr-Ø-e] in DCB. Mukherjee (2022) also observed that –ra is mandatory in generic sentences with human nouns referring back to a sub-concept of a species. While –ra has to be obviously attached to the NPs- manuS and lok when they are preceded by attributive adjectives or are in possessive constructions, the omission of the marker is also possible but it would convey a singular sense. Nevertheless, the consultants of this study frequently drop –ra from manuS and lok including plural senses.

(24) a) dhaka-r lok/lok-era biriani pOchondo kOr-Ø-e
 Dhaka-GEN man/man-PL biryani like do-PRS-3.INFR
 “The people of Dhaka like biryani”

b) sileT-er lok/lok-era lOndon ja-Ø-e
 sylhet-GEN people/man-PL London go-PRS-3.INFR
 “The people of Sylhet go to London”

However, in our field data the use of –ta with kind terms and in –ta marked subjects in generic sentences are also found, it has been discussed in section 3.1.2.

1.2.5. Reduplication and plurality

By reduplicating adjectives the plural category can be embodied in different contexts.

(25) jhuRi-te bORo bORo am-Ø ach-Ø-e
 basket-LOC big big mango-PL be-PRS-3INFR
 “There are big mangoes in the basket”

In this example, although the noun is itself a bare noun which indicates plural sense, the reduplication of the adjective makes it sure that there is more than one mango in the basket. In our field data, it is also observed that one consultant implies the reduplication of adjectives in the context of anaphoric definite reference.

(26) amar ma choTo murgi pal-e. Ek-Ta SOmOy dhekh-i oi choTo choTo
 murgi-r
 My mother little hens raise-3INFR one-CLF time see-1 that little little
 hen- Ø-GEN

 bacca-gulo ma-r kache af-e eboN ma bujh-te par-e
 chick-PL mother-GEN to come-3.INFR and mother understand-IPFP
 able-3INFR

e-der khudha lege-ch-Ø-e
 3SG-GEN.PL hungry strick.PRF-PRF-PRS-3.INFR

“My mother raises little chicks. I see sometimes those little chicks come to my mother and she understands that they are hungry”

In this example, the object of the first sentence is a bare form and an adjective is preceded it. On the other hand, the subject of the first clause of the second sentence not only takes the definite plural marker –gulo but also it is followed by the duplicated form of the adjective of the first sentence. In this case, the –gulo marked subject and the duplicated form of the adjective refer

back to the antecedent of the first sentence. Based on our field data the context of the anaphoric reference has been discussed in section 3.4.1.

1.2.6. Plurality of genitive case

The plurality of animate (mostly in the case of human) nouns can be encoded through the genitive plural marker –der, which is basically a plural counterpart of the nominative plural marker –ra (and it is in free variation with –eder) regarding the indirect object of the transitive clause and the intransitive clause with the existential ach verb.

- (27) a) SikkhOk-ra chatro-der/chatro-der-ke boi-Ø di-cch-Ø-en
 teacher-PL student-GEN.PL/student-GEN.PL-OBJ book-PL give.IPF-IPF-PRS-3.FR
 “The teachers are giving books to the students”

- b) SikkhOk-ra chatro-gulo-ke/*chatro-gulo boi-Ø di-cc^h-Ø-en
 teacher-PL student-PL-OBJ/student-NOM.PL book-PL give.IPF-IPF-PRS-3.FR
 “The teachers are giving books to the students”

- c) chatro-gulo-r/chatro-der/*ch^otro-gulo kache boi-Ø ach-Ø-e
 student-PL-GEN/student-GEN.PL/*student-NOM.PL to book-PL be-PRS-3.3INFR
 “The students have books”

It is seen in (27) (a) that if the indirect object of a transitive clause is plural, it takes the genitive plural marker – der for indefinite and –gulo for definite sense respectively. Moreover, in this case –ke objective marker can be used optionally. However, in a previous study, it is noted that – der works as a portmanteau bound morpheme- representing both genitive and objective plural markers in KCB, on the other hand, in DCB – der-ke functions for expressing those categories (David, 2016). Nevertheless, in this study, it is seen that the consultants alter – der and – der-ke frequently in transitive constructions. Thus, there is an optionality regarding using those markers in DCB. In example (b), if the object takes definite –gulo, the use of objective case marker -ke is mandatory. In the case of sentence with ach verb (c) if the subject takes –gulo marker, the genitive –r marker has to be attached to it or, a genitive – der must be attached to the subject. The function of plurality associated with genitive cases has been discussed on the basis of our field data in section 3.2.

1.2.7. Plural forms with proper noun

Previous studies showed that implying –ra and –gulo with proper nouns must have different interpretations- while the former represents a group with the referent of the proper nouns, the latter expresses regular plural (Biswas, 2013; Dayal, 2014).

- (28) a) robin-ra col-e gE-ch-Ø-e
 robin-PL move-PRFP go.PRF-PRF-PRS-3.INFR
 “Robin and others have gone away”

- b) *robin-gulo col-e gE-ch-Ø-e
 robin-PL move-PRFP go.PRF-PRF-PRS-3.INFR
 “Robin and others have gone away”

- c. *mOndol-gulo col-e gE-ch-Ø-e

mondol-PL move-PRFP go.PRF-PRF-PRS-3.INFR

“The mondols have gone away”

To infer associative value –ra can be added to a person’s first name regardless of DCB and KCB varieties. It is observed that –gulo can also be attached to the first name such as, Robin-gulo to interpret a set of plural individuals where each member of the set is a boy named Robin. This rule can be implemented in KCB, on the contrary, it does not work in DCB. This construction even is not acceptable to many KCB speakers, in particular, Dayal (2014) reports –gulo is only acceptable if attached to a surname for instance,

(29) ghoS-gulo eSe-ch-il-o

Gosh-PL come.PRF-PRF-PST-3INFR

“The goshes came”

However, in DCB –gulo can not only be attached to a proper name but also it is not appropriate to attach it with a surname, such as DCB speakers do not say [mOndol-gulo col-e gE-c^h-Ø-e]. In addition, in DCB the idea of using surnames is not as significant as in KCB.

1.2.8. Definite plural references in different contexts

Definite references generally occur in several contexts- anaphoric linking, bridging cross-reference, visibly present entities, situational reference and global unique entities (Simpson & Biswas, 2016, Lyons, 1999, Schwarz, 2013). Implementing these contexts in Bangla the differences between bare classifiers and bare noun patterns have been analyzed in a study, which shows regarding definiteness the speakers prefer using the bare classifier pattern, whereas in the case of bare nouns they do not feel it to be appropriate (Simpson and Biswas, 2016). In this study, these five contexts have also been implemented to explain definite plural references in section 3. Here, the basic ideas of these contexts are described.

1.2.8.1. Anaphoric plural definite reference

Cross-linguistically a frequent context is found in which a definite determiner occurs in the situation where the reference of an entity is established by an anaphoric link that refers back to an antecedent- which must be present linguistically in the discourse. In Bangla, the bare classifiers are generally present in the anaphoric linking for referring back to the antecedent which is already introduced in the previous structure of the discourse.

(30) gOtokal ami Ek-Ta kOlom o Ek-Ta pensil kine-ch-Ø-i

Yesterday I one-CLF pen and one-CLF pencil buy.PRF-PRF-PRS-1

baSa-e eS-e dekh-Ø-i kOlom-Ta kaj kor-ch-Ø-e na

home-LOC come-PRFP see-PRS-1 pen-CLF work do.IPF-IPF-PRS-3.INFR NEG

“Yesterday I bought a pen and a pencil. After coming back home I saw the pen was not working”

In this example the referent is inanimate and it is not acceptable to use bare nouns to express the definiteness of the referent. Similarly, in the case of plural definiteness the –gulo marked referent is required for referring back to the antecedent of the first sentence.

(31) gOtokal ami kichu kOlom o pensil kine-ch-Ø-i.

Yesterday I some pen and pencil buy.PRF-PRF-PRS-1

baSa-e eS-e dekh-Ø-i kOlom-gulo kaj kor-ch-Ø-e na

home-LOC come-PRFP see-PRS-1 pen-CLF work do.IPF-IPF-PRS3.INFR NEG

“Yesterday I bought some pens and pencils. After coming back home I saw the pens were not working”

The plurality of anaphoric reference has been discussed by using our field data including different referents (such as, animate/inanimate, human/non-human) and the respect feature of the human referent in section 3.4.

1.2.8.2. Bridging definite plural cross-reference

Bridging cross-reference or via association (Clark, 1975; Lyons, 1999) is a particular type of relation which is a consequence of the use of definite determiners, such as in English, the use of ‘the’ in a discourse. This definiteness refers to an entity to some other entity or group of entities referred to in the discourse (Simpson and Biswas, 2016). This kind of definite reference functions by using bare classifier patterns in Bangla. For instance,

(32) a) amar phrij-Ta Sara-te hO-b-e. er kOmpreSar-Ta idaniN
my fridge-CL repair-IPFP become-FUT-3.INFR its compressor-CL these days

khub SObdo kor-ch-Ø-e

very noise do.IPF-IPF-PRS-3.INFR

“My fridge needs to be repaired. These days its compressor makes too much noise”

b) amar bondhu Ek-Ta OdbhuT gaRi kine-ch-Ø-e.

my friend one-CL strange car buy.PRF-PRF-PRS-3.INFR

er giar sTik-Ta sTiariN huil-er Sathe lagano

its gear stick-CL steering wheel-GEN with attached

“My friend has bought a strange car. Its gear stick is attached to the steering wheel”

In examples (a) and (b), the “compressor” and the “gear stick” are integral parts of the fridge and car respectively. In the second sentence of those examples, new referents have occurred with bare classifiers which refer back to the antecedent in the first sentences.

Expressing plural sense in this context –gulo definite marker has to be used for non-animate objects. If we substitute the mentioned parts of (32) with some other parts of the fridge and the car such as,

(33) a) amar phrij-Ta Sara-te hO-b-e. er dOroja-gulo bneNg-e
my fridge-CL repair-IPFP become-FUT-3.INFR its door-PL break-PRFP

gE-ch-Ø-e

go.PRF-PRF-PRS-3.INFR

“My fridge needs to be repaired. Its doors have been broken”

b) amar bondhu Ek-Ta SundOr gaRi kine-ch-Ø-e. er sit-gulo

my friend one-CL nice car buy.PRF-PRF-PRS-3INFR its seat-PL

khub aramdaok

very comfortable

“My friend has bought a nice car. Its seats are very comfortable”

In (33), -gulo marked referents are mandatory otherwise, there would be a lack of anaphoric links to the antecedents of the first sentences.

For human animate referent which contains the respect feature or situationally presented with a positive sense, a bare noun pattern generally uses regarding this cross-reference (Simpson and Biswas, 2016). On the other hand, if the referent does not have a respect feature, a bare classifier pattern would occur.

(34) a) gOtokal ami Ek-Ta tEksi nie reil steSon-e gie-ch-il-am. calok
 khub bhOdro
 yesterday I one-CL taxi take rail station-LOC go.PRF-PRF-PST-1 driver very
 decent

ar upokari ch-il-en
 and benevolent be-PST-3.FR

“Yesterday I went to the rail station by a taxi. The driver was very decent and benevolent”

b) gOtokal ami Ek-Ta tEksi nie reil steSon-e gie-c^h-il-am draibhar-Ta
 bhiSon
 yesterday I one-CL taxi take rail station-LOC go.PRF-PRF-PST-1 driver-CL
 very

ObhOdro ch-il-o
 impolite be-PST-3.INFR

“Yesterday I went to the rail station by a taxi. The driver was very impolite”

(Simpson & Biswas, 2016)

In DCB, both bare classifier and bare noun forms can be used optionally in this context regardless of the respect feature. Such as, we can say,

(35) gOtokal ami ubar kore earport theke phir-ch-il-am. draibhar/draibhar-Ta
 k^hub
 yesterday I uber by airport from return.IPF-IPF-PST-1 driver/driver-CL
 very

SOhojogita kore-ch-e
 help do.PRF-PRF-Ø-3.INFR

“Yesterday I was returning from the airport by an uber. The driver helped (me) a lot”

In this example even though the driver was very supportive, the bare classifier does not make any derogatory sense for him. Moreover, using the verb form koreche does not convey any disrespect to the driver, although the person marker –e stands for 3rd person informal category. However, regarding plural reference –ra marked nominal or bare nominal is generally used in this context.

1.2.8.3. Indicating plural visible referents

When a single entity is visible to the speaker and the hearer, the bare classifier pattern is generally used for definite reference and, in this case, the bare noun form is not accepted. Some contexts relating to visible referents are given below.

(36) a) Two friends are repairing a ceiling fan. One friend says:

kEpasitar-ta d-e
 capacitor-CL give.IMP-2.INT

“Give me the capacitor”

- b) Two friends are standing on the street. One of them says:

dEkh kukur-Ta edik-e aS-ch-Ø-e
look dog-CL here-LOC come.IPF-IPF-PRS-3.INFR
“Look! The dog is coming here”

- c) Two friends are waiting for a train and looking for a newspaper as well. One of them says:

oi chele-Ta-r/ lok-Ta-r kache pepar ach-Ø-e
that boy-CL-GEN man-CL-GEN to newspaper be-PRS-3.INFR
“That boy/man has newspaper”

For having plural interpretations of the above contexts –gulo can be generally attached to both inanimate and animate nouns. In addition, -gulo can also be added to the human nouns.

- (37) a) Two friends have arranged a party. One friend says:

khabar-er pEkeT-gulo/pEkeT-Ø mehoman-d̥er di-e d-e
food-GEN packet-PL/packet guest-GEN.PL give-PRFP give-2.IMP.INT
“Give the packets of food to the guests”

- b) In an exam hall, the teacher is asking his/her assistant to give the exam papers to the students:

khata-gulo/khata-Ø di-e da-o
exam paper-PL/paper-PL give-PRFP give-2.INFR.IMP
“Give the exam papers”

- c) Two friends are standing on the street and all of a sudden some dogs are coming to them. One friend says:

dEkh kukur-gulo/kukur-Ø edike aS-ch-Ø-e
look dog-PL/dog-PL here come.IPF-IPF-3.INFR
“Look! The dogs are coming here”

- d) In an exam hall, the teacher asks the assistant whether the students have pens and the assistant reply:

chatro-d̥er/ chatro-gulo-r kache kOlom- Ø ach-Ø-e
student-GEN.PL/student-PL-GEN to pen-PL be-PRS-3.INFR
“The students have pens”

- e) Two friends arrived at a medical center to get vaccinated. One friend says:

medikel Ophisar-ra/*Ophisar-gulo odike boS-e ach-Ø-e
medical officer-PL officer-PL there sit-PRFP be-PRS-3.INFR
“The medical officers are sitting there”

From the above example, it is seen that the plural definite marker –gulo can be optionally used for inanimate nouns, whereas for animate nouns using –gulo or -ra is mandatory in this particular context. However, in this context –ra is supposed to be added with the noun which has a respect feature.

1.2.8.4. Reference of plural non-anaphoric uniques

Some contexts can be found in some languages that have definite determiners, involving references to entities that have salient uniqueness. Three different kinds of unique referents such as global uniques, inferenced uniques and situational uniques have been discussed in the case of their use in Bangla in a previous study (Simpson and Biswas, 2016).

1.2.8.4.1. Global uniques

There are some entities which are unique for all- this is categorized as global uniques. According to Simpson & Biswas (2016), “global uniques such as, ‘the moon’, ‘the sun’ are complex in the way reference is made to them in Bangla (p. 11). The bare classifier pattern is required to refer to the properties of global uniques.

(38) a) gOtorat-e caMd-Ta/caMd jhOlmOl kor-ch-il-o
 last night-LOC moon-CL/moon bright do.IPF-IPF-PST-3.INFR
 “The moon was very bright last night”

b) aj akaS khub meghla. Surjo-Ta/Surjo kothay
 today sky very cloudy. Sun-CL/sun where
 “The sky is very cloudy today. Where is the sun?”

(Simpson & Biswas, 2016)

However, in the case of (38), it is assumed that either plural marked NP or bare NP patterns are possible. Similarly, we may use –gulo marked form or bare noun pattern to make plural references of those uniques. For example,

(39) a) gOtorat-e akaS-e ?tara-gulo/tara jhikmik kore-ch-Ø-e
 Last night sky-LOC star-CL/star shine do.PRF-PRF-PRS-3.INFR
 “The stars were shining last night”

Furthermore, if a generic property is ascribed to a global uniques, the bare noun pattern must occur instead of the bare classifier. Referring to the plural of this unique, either bare noun or –gulo marked noun can be used. This context has been explained based on our field data in section 3.4.

(40) (a) caMd prithibi-r upogroho
 moon world-GEN satellite
 “The moon is a satellite of the earth”

(Simpson & Biswas, 2016)

(b) SOrotkal-e baNladeS-er akaS-e tara-Ø/tara-gulo jhikmik kor-Ø-e
 Autumn-LOC bangladesh-GEN sky-LOC star-PL/star-PL shine do-PRS-3.INFR
 “The stars shine in the sky of Bangladesh in autumn”

1.2.8.4.2. Inferenced uniques

This type of unique is a referent in which the speaker infers a particular unique referent which is previously unfamiliar to the speaker (Simpson & Biswas, 2016). Focusing on the attention of inference, Bangla speakers generally restrict themselves to the situations in which such inferencing is produced based on non-linguistic evidence and not as a consequence of bridging-cross reference. Having such restrictions these types of inferenced uniques are generally

encoded by bare noun patterns instead of bare classifier patterns. Some examples of the contexts of inferred uniques and their plural counterparts are given below.

(41) a) A car carries a new guest to a hotel every day and the manager receives the guest. One day the car arrived at the hotel and the passenger seat of the car was empty. The manager asks the driver:

pEsenjar koi
passenger where
“Where is the passenger?”

For having a plural expression of this context: a driver drives a coaster and brings some passengers every day. The manager may ask the same question either with a bare noun or with –ra marked noun.

pEsenjar/pEsenjar-ra koi
passenger-PL/passenger-PL where
“Where are the passengers?”

b) Two friends visit a health service center and look for basic information about their service. One friend (speaker) says:

totthokendro odike
information center there
“The information center is over there”

In the case of plural sense of this context: they are in a super shop and the hearer needs to buy some pens for the kids. The speaker says:

kOlom-Ø odike
pen-PL there
“The pens are over there”

It is noted that in this context, regarding plural interpretation bare noun is the most appropriate choice and the –gulo marked noun sounds odd here.

c) Two friends are having a conversation. The speaker says:

gOṭokal gulSan gie-ch-il-am mobail kin-te. gi-e dekh-Ø-i mobail-er
yesterday Gulshan go.PRF-PRF-PST-1 mobile buy-IPFP go-PRFP see-PRS-1
mobile-GEN

dokan-gulo bondho
shop-PL close
“Yesterday I went to Gulshan to buy a mobile phone. After arriving there I saw that the mobile shops were closed”

It is noteworthy that even if bridging cross-reference is implemented in the first sentence of this context by adding *gulSan-er market-e* a bare noun or a bare classifier would be accepted with the *dokan* of the second sentence.

d) *gOtokal gulSan-er market-e gie-ch-il-am. gi-e dekh-Ø-i mobail-er yesterday gulshan-GEN market-LOC go.PRF-PRF-PST-1 go-PRFP see-PRS-1 mobile-GEN*

dokan/dokan-gulo bOndho shop/shop-PL close

“Yesterday I went to the market of Gulshan. After arriving there I saw that the mobile shops were closed”

It can be said from the above discussion that although the purely inferred uniques (in particular singularity) are not licensed via bridging cross-references are regularly presented by means of the bare nouns (Simpson & Biswas, 2016) either bare nouns or –*gulo* marked phrases are appropriate for inanimate nouns, whereas either –*ra* marked phrases or bare nouns are accepted regarding animate (in particular human) nouns.

1.2.8.4.3. Situational uniques

Situational unique is a particular kind of context where the speaker and the hearer know that this is a unique referent that is not licensed by bridging cross-reference or visibility. These uniques are frequently presented with the bare noun pattern. Moreover, if a speaker actively thinks of an entity before referring to it, a bare classifier pattern is also possible (Simpson & Biswas, 2016). However, in the case of plural references in this context, either bare nouns or –*gulo* marked phrases would be accepted.

(42) a) Himi and Himu are filming with a video camera. All of a sudden the camera gets switched off due to the battery damage. Then Himi says:

bETari-Ø /bETari-gulo koi? amar mon-e hO-e o-gulo tor bEg-e battery/battery-PL where? my mind-LOC become-3INFR that-PL you-GEN.INT bag-LOC

“Where are the batteries? I think they are in your bag.

b) After a devastating storm, a family member comes back home and asks another member:

janala-gulo/janala-Ø lagie-ch-il-a? window-PL/window-PL closePRF-PRF-PST-2.INFR

“Have you closed the windows?”

However, the consultants of this study suggest that in (42) for having plural inferences bare nouns sound natural rather than –*gulo* marked phrases.

1.2.9. Indefinite collective plural

In some studies (Thompson, 2010; David, 2016), it is stated that by adding –*e* with a noun and quantifier an indefinite plural reading can be expressed. Such as,

- (43) a) Onek-e
 many-PL
 “Many people”
 b) du-jon-e
 two-CL-PL
 “Two people”
 c) lok-e
 man-PL
 “People”

(Thompson, 2010)

- (44) a) bhut-e kOkhono alo jal-Ø-e na
 Ghost-PL ever lights light-PRS-3.INFR NEG
 “Ghosts never turns on light”

(David, 2016)

In the above examples this –e is working as an agent marker instead of a plural marker.

2. Methods and Materials

This study includes a sample of 15 adult Bangla speakers who reside in Bangladesh (in particular Dhaka) and their age ranges from 35 to 40.

The data collection procedure can be divided into three parts. Firstly, the data have been elicited through picture descriptions. A set of pictures (overall 26 pictures) have been used as stimuli- most of them have been taken from the website of Max Planck Institute for Evolutionary Anthropology, and the rest of the pictures have been downloaded from the Google stock image. Regarding selecting the stimuli some concepts and contexts, such as optionality between bare nouns and plurality marked nouns, optionality between –gulo and –ra, definiteness, anaphoric reference, bridging cross-reference, visibility of referents and non-anaphoric uniques have been considered. Secondly, the consultants were asked to speak about a topic in order to have natural texts. In this case, they were asked to talk about the relationship between humans and animals in their home town, including several sub-topics. Finally, the consultants were shown some sentences related to such contexts and they were asked whether they use these structures in DCB. This study has been conducted by qualitative methods. It attempts to answer some research questions. The prime research question of this study is: how does –gulo work differently from –ra in various contexts in DCB? This question conflates some other questions: a) how does –gulo work as a definite plural marker? b) In which contexts does the alteration between –gulo and –ra occur? C) How does the optionality between bare nouns and plurality-marked noun phrases occur?

3. Results and Discussion

In this section, the core arguments relating to the conceptual basis- which have been discussed in section 1- of Bangla plurality regarding DCB will be analyzed by explaining our field data. In particular, the bare nominal vs. plurality marked NPs, definiteness of plurality, function of plurality in correlative clauses and plural references in different contexts have been considered the prime issues of discussion of this study.

3.1. The bare nouns vs. plurality marked NPs

We have already seen this in section 1.2.1. that Bangla nouns may drop classifiers and indefinite singular classifiers, which may represent plural senses. These types of bare arguments not only express definiteness but also they may act as kind-level terms. However, in this study the consultants were shown a set of pictures including different events as well as singular and plural categories- they used bare noun patterns frequently despite watching plural entities. In other words, it can be said that DCB speakers use bare nouns to indicate plural categories. For instances,

(45) In one picture they were shown that some birds were sitting on some trees. The following sentences are the most frequent descriptions of this picture.

a) gach-Ø-e kOto-gulo pakhi-Ø ach-Ø-e
tree-PL-LOC few-PL bird-PL be-PRS-3.INFR
“There are some birds on the trees”

b) gach-Ø-e pakhi-Ø ach-Ø-e
tree-PL-LOC bird-PL be-PRS-3.INFR
“There are birds on the trees”

c) Onek-gulo gach-Ø-e pakhi-Ø boS-e ach-Ø-e
many-PL tree-LOC bird-PL sit-PRFP be-PRS-3.INFR
“There are birds sitting on many trees”

d) kOek-Ti gach-Ø-e kOto-gulo pakhi-Ø boS-e ach-Ø-e
some-CL tree-PL-LOC few-PL bird-PL sit-PRPF be-PRS-3.INFR
“There are some birds sitting on some trees”

It is noted that example (d) is produced by only one consultant out of 15 in which both the subject and the oblique are modified by plural marked quantifiers. However, (a), (b) and (c) are the most frequent statements for this picture- it is seen in these examples that either the subject or the oblique is marked by –gulo plural marker instead of marking both of them in a single sentence, in addition, in (b), even both subject and oblique remained unmarked for plurality. Thus, the speakers tend to use bare nouns.

(46) In another picture, they were shown that some girls rode on some horses. The most frequent statements for this stimulus are given below.

a) meye-ra ghoRa-Ø-e coRe-ch-Ø-e
girl-PL horse-PL-LOC ride.PRFP be-PRS-3.INFR
“The girls have ridden on the horses”

b) meye-ra ghoRa-Ø-r upor boS-e ach-Ø-e
girl-PL horse-PL-GEN on sit-PRFP be-PRS-3.INFR
“The girls are sitting on the horse”

Although no one said [meye-ra ghoRa-gulo-r/ ghoRa-der upor coRe-ch-Ø-e] this sentence is also accepted (I can say it from my knowledge of Bangla as a native speaker). Since it is a common tendency of DCB speakers to add no plural markers with objects, the plural –gulo is omitted

from the above examples. Moreover, the consultants were asked why they omitted the –gulo from the objects and their answers were: since the subjects represent plural nouns, it is beyond doubt that they are riding several horses instead of one.

However, it is also noteworthy that there is a morpho-syntactic interaction between the post position (e.g. upor) and the case markers (e.g. –r and –der) - most of the postpositions of Bangla require the object to take the nominative, genitive and objective cases. In the examples of (46), due to the postposition upor (which preceded the object ghoRa) the object takes –r genitive marker mandatorily and it optionally leaves the plural marker –gulo. Nevertheless, in other contexts, the object takes both the genitive case as well as –gulo with postposition dike such as,

d) bacca-ra prani-gulo-r dike taki-e ach-Ø-e
 child-PL animal-PL-GEN to stare-PRFP be-PRS-3INFR
 “The children are staring at the animals”

The relation between postposition and definite plurality has been discussed in section 3.2.

3.1.2. Plurality of kind terms

It is discussed in Section 1 that since –gulo is a plural counterpart of –ta and it is also unacceptable to add it with phrases which have kind-level predicates, it cannot be attached to the phrases which occur in generic sentences. However, we have seen that the consultants frequently add –ta to kind-level predicates, and this –ta marked phrases denote plural senses.

(47) a) poSu-pakhi-Ø bol-te ami kukur-Ta-ke alada kor-e menSon kor-te
 ca-i

Animal-bird-PL tell-IPFP I dog-CL-OBJ separate do-PRFP mention do-IPFP
 want-1

“Regarding animals I want to mention the dogs separately”

b) amader deS-e kukur-Ta baSa-r bhetor pala ja-Ø-e na
 our country-LOC dog-CL home-GEN inside raise go-PRS-3INFR NEG

“The dogs cannot be raised inside a home in our country”

In example (a), the consultant adds a definite singular –ta and an objective marker –ke to the object dog- which is represented as a collective noun with plural sense in this sentence. Thus, the phrase kukur-ta-ke does not express a single dog in this sentence, despite having –ta it denotes plural meaning. Similarly, in example (b), kukur is a kind term, although it takes –ta to express plurality.

We have also discussed unlike –gulo, -ra marked phrases can function as kind terms and are accepted in generic sentences. In addition, we have also observed, –ra can function optionally in generic sentences when the animate NP (both human and non-human) taking the subject position refers to both an entire kind/class of species and a particular subset of the kind.

In our field data, it is noted that –ra has been used optionally regarding both kinds and sub-kinds. Thus, the consultants used bare nominal, –ra marked nominal, or –gulo marked nominal in a similar context. For example,

(48) a) amader aSe paSe Onek prani-Ø ach-Ø-e jEmon pakhi-ra ach-Ø-e,
 our around many animal-PL be-PRS-3.INFR such as bird-PL
 be-PRS-3.INFR

poSu-Ø bol-te kukur-Ø biRal-Ø dEkh-a ja-Ø-e
 animal-PL tell-IPFP dog-PL cat-PL see-VN go-3.INFR

“There are many animals around us, for example, there are birds, among animals’ dogs and cats are seen”

b) jOkhon kukur-Ø bacca dE-y choto choto bacca-to, k^hub kiuT - oi
 SOmo-e
 when dog-PL puppy give birth-PRS-3INFR little little puppy-CON very cute
 that time-LOC

ami dekhe-ch-Ø-i stuDenT-ra bacca-gulo-ke jOtno kor-Ø-e
 I see-PRF-PRS-1 student-PL puppy-PL-OBJ take care do-PRS-3.INFR
 “When dogs give birth to puppies- since they are little puppies, they are very cute- I saw (that) the students took care of the puppies that time”

In example (a), the consultant uses –ra with pakhi as a kind term, but the rest of the nouns remain unmarked and function as bare nominals. In the case of (b), the consultant uses a bare noun in the first clause, then the same bare noun repeats in the second clause followed by a reduplicated adjective which not only modifies the noun but also represents the plural category of the noun; finally, in the third clause of the sentence, it takes plural marker –gulo that refers back to the antecedent of the discourse.

3.2. Definiteness of plurality

Although Bangla plural bare nouns do not have any definite interpretation –gulo marked NPs contain both plurality and strong definiteness. It is found in the field data that if the subject/agent takes –gulo, the object/patient generally does not take any plural marker even though it denotes the sense of the plural category. Moreover, in the case of the intransitive clause, if it takes an existential ach verb and there is no postposition in the clause, the object must drop the plural marker.

(49) a) manuS-gulo-r hat-e mach-Ø ach-Ø-e
 people-PL-GEN hand-LOC fish-PL be-PRS-3.INFR
 “There are fish in those people’s hand”

b) chele-gulo phuTbOl-Ø kol-e ni-e boS-e ach-Ø-e
 boy-PL football-PL lap-LOC take-PRFP sit-PRFP be-PRS-3.INFR
 “The boys are sitting holding footballs on their laps”

c) meye-ra ghoRa-Ø-e coRe-ch-Ø-e
 girl-PL horse-PL-LOC ride.PRFP-PRFP-PRS-3INFR
 “The girls have ridden on the horses”

d) bacca-ra khOrgoS-Ø dekh-ch-Ø-e
 child-PL rabbit-PL eatch.IPF-IPF-PRS-3INFR
 “The children are watching the rabbits”

In (49), all the objects and obliques are in bare noun forms and do not take any plural marker, although they contain plural categories. On the other hand, if there is a postposition in the agreement of the subject and the object, based on the requirement of the postposition the object obligatorily takes a plural marker. In other words, since Bangla postposition requires adding a case marker to the object, this case marker also requires adding a definite marker to the object.

(50) a) mohila-ra kriSi upokOron-gulo-r Samne daMRi-e ach-Ø-e
 woman-PL agriculture tool-PL-GEN in front of stand-PRFP be-PRS-3INFR
 “The women are standing in front of the agricultural tools”

b) bacca-ra prani-gulo-r dike taki-e ach-Ø-e
 child-PL animal-PL-GEN to stare-PRFP be-PRS-3INFR
 “The children are staring at the animals”

c) bacca-gulo kukur-gulo-ke mach-Ø khaow-a-cch-Ø-e
 child-PL dog-PL-OBJ fish-PL eat-VN-IPF-PRS-3INFR
 “The children are feeding the dogs fish”

d) puliS-Ø lok-gulo-ke mar-ch-Ø-e
 police-PL people-PL-OBJ beat-IPF-IPF-PRS-3INFR
 “The police are beating the people”

In (50), in examples (a) and (b) the compound verbs are followed by the postpositions that require attaching genitive markers to the objects of those sentences. Consequently, the genitive –r demands to have a definite –gulo with the objects. Similarly, in example (c), the causative verb requires adding an objective marker, -ke to the object, and this case marker also needs to follow a definite plural –gulo for its morpho-syntactic role. However, sometimes the subject/agent may drop the plural marker despite having a plural category. In example (d), despite the object taking –gulo and a –ke marker mandatorily due to the transitivity of the verb, the subject remained bare (the consultants were shown the picture which depicts several police are beating people).

3.2.1. –gulo marked quantifier

–gulo marked quantifier generally mandatorily requires plural agreement on the bound variable to make a definite interpretation. Thus, although singular and plural pronouns can be bound by the bare classifier the –gulo marked quantifiers must be bound with plural pronouns. Since plural quantifiers convey plural sense, they are generally bound with plural pronouns. In this study it is found that the consultants prefer to use plural pronouns regardless –gulo marked quantifier and unmarked quantifiers.

(51) a) Onek chele-meye-Ø tader khOrgoS-Ø kol-e ni-e boS-e ach-Ø-e
 many boy-girl-PL their rabbit-PL lap-LOC take-PRFP sit-PRFP
 be-PRS-3INFR
 “Manny boys and girls are sitting with holding their rabbits on the laps”

b) Onek-gulo chele-meye-Ø tader kukur-Ø-ke mach-Ø khaow-a-cch-Ø-e
 many-PL boy-girl-PL their dog-PL-OBJ fish-PL eat-VN-PRF-PRS-3INFR
 “Many boys and girls are feeding fish to their dogs”

According to the DCB speakers of this study using singular pronouns are not acceptable at all for both examples.

3.3. *Function of plurality in correlative clauses*

To construct relative clauses, correlative structures are generally used for modifying nouns. In most of the case of this kind of construction, a form of third-person demonstrative (either the demonstrative determiner or the demonstrative pronoun) is used in the main clause to refer back to the modified noun. However, the singular classifier –ta can be suffixed to the noun phrases (David, 2016) whereas, for having plural interpretation –gulo or –ra must be added to the NPs.

(52) a) poSu-pakhi-r dokan-e kukur-Ø biRal-Ø je-gulo ach-Ø-e Se-gulo
 khub
 animal-bird-GEN shop-LOC dog-PL cat-PL CMPL-PL be-PRS-3INFR 3SG-PL
 very
 dami
 expensive
 “The animals are very expensive that are found in the pet shop”

b) baNladeS-e je prani-gulo ghur-e beRa-e Se-gulo-r
 bangladesh-LOC CMPL animal-PL walk-PRPF walk-PRS-3INFR 3SG-PL-GEN

khub je jOtn-e-r dOrkar hO-e Emon na
 very CMPL take care-GEN necessary become-PRS-3INFR such NEG
 “It is not the case that the animals that walk around in Bangladesh need much care”

c) poSa prani-r moddhe je grihopalito prani-gulo ach-Ø-e Se-gulo
 pet animal-GEN among CMPL domestic animal-PL be-PRS-3INFR 3SG-PL

kintu poSa prani-r-i ONSo
 but pet animal-GEN-EMPH part
 “The domestic animals among the pet animals are basically part of the pet animals”

d) Onek manuS elaka-e je-SOb kukur-Ø thak-Ø-e Se-SOb kukur-der
 many people suburb-LOC CMPL-PL dog-PL be-PRS-3INFR 3SG-PL dog-PL.GEN

khabar bEbostha kOr-Ø-en
 food arrange do-PRS-3INFR
 “Many people in the suburb arrange food for the dogs that live there”

In the above examples, it is observed that –gulo markers may either attach to the main clause or to the third-person pronoun of the relative clause. In (a), -gulo is suffixed to the complementizer je of the main clause as well as it is also added to the third-person pronoun of the relative clause. On the other hand, in the cases of examples (b) and (c) –gulo has not been attached to the complementizers of the main clauses whereas, it is suffixed to the third-person pronouns of the relative clauses. In example (d), quantifier SOB instead of –gulo has been attached to the complementizer and third-person pronoun of the main and relative clause respectively.

3.4. Plural references in different contexts

Analyzing the difference between the bare noun and bare classifier patterns, implying different definite contextual references- anaphoric linking, bridging cross-reference, visibly present entities and non-anaphoric uniques, it has been studied (see section 1.2.8.) that the speakers prefer using the bare classifier patterns. We have explained how DCB speakers use plural references in those particular contexts.

3.4.1. Anaphoric plural references

We have already discussed (in section 1.2.8.) that to refer back to the antecedent (which must be present linguistically in the discourse), the bare classifier is generally presented whereas, -gulo marked reference is required for plural references. In this study it is also found that the antecedents which linguistically occurred in the discourse might be presented as bare nouns, as a result, their plural category is encoded by -gulo (for animate, inanimate and human nouns) in the anaphoric linking. The following examples have been taken from our field data.

(53) a) kOek-jon daMRi-e ach-Ø-e. tader paSe kukur-Ø ach-Ø-e.
kukur-gulo

Some-CL stand-PRFP be-PRS-3INFR their beside dog-PL be-PRS-3INFR
dog-PL

mach-Ø kha-cch-Ø-e

fish-PL eat.IPF-IPF-PRS-3INFR

“Some people are standing. There are some dogs beside them. The dogs are eating fish.

b) gOtokal tebil-er upor kOlom-Ø ch-il-o. aj dekh-Ø-i chatro-ra
kOlom-gulo

yesterday table-GEN on pen-PL be-PST-3INFR today see-PRS-1 student-PL
pen-PL

ni-e gE-ch-Ø-e

take-PRFP go-PRF-PRS-3INFR

“Yesterday there were pens on the table. Today I have seen that the students have taken the pens”

In (a), the subject of the third sentence is marked by a definite plural marker -gulo which refers back to its antecedent- the object of the second sentence that is a bare noun form. Thus, the plural category of the object of the second sentence is confirmed by the -gulo marked object of the third sentence. Similarly, in (b) kOlom of the first sentence is a bare NP but, when it occurs in the second sentence it turns into a -gulo marked NP to encode its plurality, and refers back to the antecedent. However, even if we drop -gulo from the second sentence, it would still have a plural interpretation because the subject of this sentence is marked by plural -ra. Thus, it is assumed from those examples that if the subject of a transitive clause contains a plural category, the direct object may also contain a plural category.

3.4.2. Bridging plural cross-reference

The definite cross-reference works by taking bare classifiers in Bangla, in particular in case of singular case -ta marked NP functions for this cross-reference. For having plural interpretation, -gulo marked NPs are used regardless of animacy in this context. The following examples are provided from our field data.

(54) a) rOmna park-e gel-e kathbiRali-Ø dekh-Ø-i. Onnanno prani-gulo-o dekh-Ø-i

romna park-LOC go-PRFP squirrel-PL see-PRS-1 other animal-PL-ADD see-PRS-1

“I see squirrels when I go to the Romna park. I also see other animals”

b) amar owardrop-Ta phel-e di-b-o. er drOwer-gulo bheN-e
my wardrobe-CL dispose-PRFP give-FUT-1 its drawer-PL break-PRFP
gE-ch- Ø-e
go.PRF-PRF-PRS-3INFR

“I will dispose my wardrobe. Its drawers have been broken”

c) gOtokal nilkhet theke Ek-Ta boi kine-ch-Ø-i. baSa-e eS-e
yesterday Nilkhet from one-CL book buy.PRF-PRF-PRS-1 home-LOC come-PRFP
dekh-Ø-i Ø er pata-gulo cheR-a
see-PRS-1 CMPL its page-PL tear-VN

“Yesterday I bought a book from Nilkhet. After coming back home I saw that the pages are torn up”

In (54), the object of the second sentence of example (a), the subject of the second sentence of example (b), and the subject of the complement clause of the second sentence of example (c) are –gulo marked NPS, which refers back to the antecedents that occurred in the previous sentences. It is also noted that the antecedents of (a), (b) and (c) are different from the referents, moreover, the antecedents are bare NPs in (a) and (c). However, in (b) while the antecedent is a bare classifier, the referent of the second sentence is marked by –gulo which refers back to the –ta marked phrase of the first sentence.

3.4.3. Visible plural reference

When multiple entities are visible to the speaker and the hearer, the –gulo marked NPs occur for inanimate, animate and human nouns, whereas -ra marked NPs for human nouns are generally used for definite reference. However, for this particular plural reference bear nouns are also accepted. In this study, the consultants were shown four sentences regarding this context (example (37)) and they were also asked which sentences are preferred. According to them, the following sentences are accepted.

(55) a) Two friends have arranged a party. One friend says:

khabar-er pEket-gulo/pEket-Ø mehoman-der di-e d-e
food-GEN packet-PL/packet guest-GEN.PL give-PRFP give-2.INT.IMP

“Give the packets of food to the guests”

b) In an exam hall, teacher asks his/her assistant to give the exam papers:

khata-gulo/khata-Ø di-e da-o
exam paper-PL/paper-PL give-PRFP give-2.INFR.IMP

“Give the exam papers”

c) Two friends are standing on the street and all of a sudden some dogs are coming to them. One friend says:

ḡEk^h! Kukur-gulo/*kukur-Ø edike aS-ch-Ø-e

look dog-PL/dog-PL here come.IPF-IPF-3.INFR
 “Look! The dogs are coming here”

- d) In an exam hall, teacher asks the assistant whether the students have pens and the assistant replies:

chatro-der/ chatro-gulo-r kache kOlom- Ø ach-Ø-e
 student-GEN.PL/student-PL-GEN to pen-PL be-PRS-3.INFR
 “The students have pens”

- e) Two friends arrived at a medical center to get vaccinated. One friend says:

medikel Ophisar-ra/*ophisar-gulo odike boS-e ach-Ø-e
 medical officer-PL officer-PL there sit-PRFP be-PRS-3.INFR
 “The medical officers are sitting there”

Thus, in DCB either –gulo marked NPs or bare NPs are accepted in the case of animate nouns in those contexts whereas, regarding human nouns, they have to be marked by -ra for the plural category. In addition, in the case of chatro either –gulo or –der marked NP is accepted. But, -ra marked NP is mandatory to indicate a person who possesses an occupational identity.

3.4.4. Non-anaphoric plural references

Since we have already discussed non-anaphoric plural references with necessary examples in section 1.2.8.3, we have explained two references- in particular, global uniques and situational uniques in this section. The consultants were asked to say which structures are preferred in the examples: (39), (40) and (42). According to the consultants, the following examples are accepted.

(56) a) gOtorat-e akaS-e tara-gulo/tara jhikmik kore-ch-Ø-e
 Last night sky-LOC star-CL/star shine do.PRF-PRF-PRS-3.INFR
 “The stars were shining last night”

b) SOrotkal-e baNladeS-er akaS-e tara-Ø/*tara-gulo jhikmik kor-Ø-e
 Autumn-LOC bangladesh-GEN sky-LOC star-PL/star-PL shine do-PRS-3.INFR
 “The stars shine in the sky of Bangladesh in autumn”

As per the consultant, although –gulo can be added to the tara in (a) the bare noun pattern sounds more natural in this context, whereas -gulo is not supposed to be added with tara at all rather, bare noun is the only option for example (b). Thus, we can say that the sub-kind does not take any plural marker in generic sentences regarding the reference of global uniques.

However, it has been mentioned for example (42) that in order to have plural references for situational uniques either –gulo marked NPs or bare NPs are accepted.

4. Conclusion

The overall discussion of this chapter can be summed up by the following observations:

- a) In an intransitive clause with an existential ach verb, either the subject or the oblique would be marked by –gulo for both animate and inanimate nouns. While both of them are often marked by the plural markers in a clause, they might also remain unmarked for the plural category. In other words, the DCB speakers are inclined to use bare nominals.

Moreover, it is also found that in a transitive clause with multiple arguments, if the subject/agent takes –gulo or -ra, the object/patient often drops the plural markers even though it denotes plural interpretation.

- b) Most of the postpositions of Bangla require the objects to take case markers, whereas a definite plural marker –gulo or a genitive form –der of associative plural –ra is also demanded by the case markers. Similarly, in causative constructions the object mandatorily takes –ke objective marker, and this objective case requires adding a definite plural marker -gulo to the object to encode the plural category.
- c) Although –Ta is a singular definite classifier it could be attached to kind-level terms- this –Ta marked phrase may have a plural interpretation.
- d) Associative plural marker –ra can be used optionally regarding both kinds and sub-kinds as well as in generic sentences- the consultants of this study frequently used either the bare nouns or the –ra marked nouns in those cases. Even the –gulo marked nouns are also seen in that context. Thus, the use of –ra, -gulo and bare nouns is semantically and syntactically optional in DCB.
- e) Since plural quantifiers convey plural senses, the DCB speakers of this study prefer using plural pronouns only regardless of –gulo marked quantifiers and plural unmarked quantifiers.
- f) Regarding correlatives, the plural markers may either attach to the complementizer of the main or the third-person pronoun of the relative clause, in addition, it can be added to the nouns of the main and the relative clauses respectively.
- g) –gulo or –ra marked NPs can be functioned as an anaphoric reference as well as bridging cross-reference for referring back to the plural antecedents in a discourse, whereas either plural suffixed NPs or bare nouns are accepted in case of the context of visual plural reference. However, while only the bare noun patterns occur in global uniques for plural reference, there is an optionality between the –gulo marked NPs and bare NPs in situational uniques.

Abbreviations

1	First person	INT	Intimate
2	Second person	LOC	Locative
3	Third person	NEG	Negative
ADD	Additive	NOM	Nominative
CLA	Classifier	OBJ	Objective
CON	Conditional	PL	Plural
CMPL	Complementizer	PRF	Perfect
FR	Formal	PRFR	Perfect participle
EMPH	Emphatic	PST	Past
FUT	Future	SG	Singular
GEN	Genitive case	VN	Verbal noun
IPF	Imperfect	*	Ungrammatical

IPFP	Imperfect participle
IMP	Imperative
INFR	Informal

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Case Marking in Uchoi

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ABSTRACT

Uchoi is an endangered Tibeto-Burman language spoken in the north-eastern hilly state Tripura, which falls under Bodo-Garo subgroup. As per the 2011 census report, the language has only 2447 native speakers. Here in this paper we are going to discuss the case markers in Uchoi. The language exhibits eight case types namely, nominative, accusative, dative, genitive, ablative, locative, instrumental and associative. Like the majority of the Tibeto-Burman languages, the Nominative case is unmarked in Uchoi. Thus, the language does not follow nominative-accusative patterns overtly, as this alignment strictly depends on transitivity. Like many other Tibeto-Burman tribes, the Uchoi community is also diverse in multiple clans, for this particular study we are focusing primarily on Jawlai variety for the data collection. The data has been collected during a field visit between September to October, 2025 in Depacherra and Ratanpur in the Gomati and South Tripura districts, respectively.

1. Introduction

Uchoi² belongs to the Bodo-Garo subgroup of Tibeto-Burman language family. Because of its prolonged contact, the language exhibits remarkable resemblance to Kokborok language. The dominant languages, such as Bangla and Kokborok, are posing a serious threat to the language since the speakers of Uchoi are shifting towards them. As Hutchinson (1906) and Debbarma (1983) stated, the tribe Uchoi is a mix of Tippera and Kuki, or the language is of Kuki origin. If we discuss the etymology, the term ‘Uchoi’ is derived from the Kokborok word ‘Ulchoi’, where ‘ullo-’ means ‘after’ and ‘choi’ means ‘to follow’. It means, ‘one who came after following someone’. As per the 2011 census report, there are about 2447 native speakers in the tribe. They make up just 0.3% of the state’s overall tribal population. The Uchoi tribe, like most TB tribes, is split up into 12 clans, and because of the Jawlai³ variety’s strong social presence, most of its speakers adhere to it. The villages under Karbuk subdivisions of Gomati district that have the

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² Uchoi is a lesser known language of Tripura, on the endangerment level it comes at critically endangered. Typologically the language exhibits N [CL-NUM] order. For further details, see Chakraborty, N. (2025) *Language Vitality and Endangerment: A Case Study of Uchoi*. Vaak Manthan, p—50-60. <https://selindia.org/wp-content/uploads/2025/07/Language-Vitality-and-Endangerment-Uchoi.pdf>

This study focuses on the Jawlai dialect of the Uchoi language, which is spoken in the Gomati and South Tripura districts. By examining one specific variety, the study aims to provide a comprehensive analysis of the language’s structure and usage, with a focus on the Case. We believe that this study will advance our knowledge of the Uchoi language and its distinctive features

³ The ‘Uchoi Youth Association’ is an active non-governmental group that has lately begun to work for the community’s welfare. The first conference in this regard took place in 2022. Apart from this there are other groups like Tripura Uchoi Youth Association (TUYA) and Uchoi Welfare Society (UAWS), which have been working together to promote both the language and the community.

highest concentration of Uchoi speakers are Kewai Uchoi Para, Dhanachandra Uchoi Para, Purna Uchoi Para, Punnam Uchoi Para, Sogoram Para, Depachhera village and Mission Hathi Para. The following Fig. 1 shows the geographical distribution of Ratanpur village, South Tripura district, from where we have collected the majority of our data.



Figure 1: Ratanpur Village, South Tripura District

The Uchois are a dynamic people with a rich cultural heritage that stretches back thousands of years. The Uchoi culture is now exclusively patrilineal, despite once being both matrilineal and patrilineal. Among the Uchois, inter-clan marriage is fairly common. In these situations, a female kid is linked to her mother's clan, whereas a male child is linked to his father's. As we have mentioned earlier, the genealogical classification of Uchoi language as a branch of Bodo-Garo group under Tibeto-Burman language family. Schematically it can be presented as Tibeto-Burman > Baric > Kamrupan > Bodo Konyak > Bodo-Garo > Bodo > Uchoi.

Here in this paper we are going to give an overall overview of case markers in Uchoi. Case is an inflectional category of a noun. According to Crystal (2008:66), case is a "grammatical category used in the analysis of word classes to identify the syntactic relationship between words in a sentence, through such contrasts as nominative, accusative, etc." In Uchoi suffixes are added to nouns and pronouns to indicate case relations. Nevertheless, the phonetic shape of the stem remains unchanged when the case suffix is applied after the stem. The paper is divided into six sections as introduction, methodology, objectives, background, case in Uchoi and finally conclusion.

2. Methodology

Both primary and secondary sources of data were employed in this study. Books, journals, articles, documents are just a few of the sources from which secondary data is collected. The majority of the primary data was collected from fieldwork conducted in September and October of 2025 using interviews with community speakers from the districts of Gomati and South Tripura. In this study, twelve language consultants from two villages-six from each village—participated. The sample was carefully selected to provide a more comprehensive picture of the use of case markers across various populations and to guarantee diversity in terms of age, gender, and educational attainment. Finally, to reduce bias and to carry both qualitative and quantitative research, a random sampling method has been used. A Zoom H4N Pro audio recorder and a Nikon D5300 digital camera were used to record and digitize the data.

3. Objectives

The main purpose of this work is to conduct a thorough analysis of the case marking particles and their featural distribution in Uchoi language. Here are the main objectives of this paper, listed below.

- a. To explain the way in which the language expresses case, especially its semantic properties.
- b. To determine the morphemes that indicate the case markers in Uchoi.
- c. To examine whether the language also shows case syncretism or not.

4. Background

The primary relational purpose of core case marking is to make clear the relationships that exist between the predicate and its dependent arguments; in other words, case marking clarifies ‘who does what to whom’. Case marking usually only appears on one of the predicate’s arguments in transitive clauses (Comrie 1989, Dixon 1994, Siewierska & Bakker 2009), as this is enough to distinguish between the A and O core grammatical functions.

The nominative-accusative and ergative-absolutive patterns are two-cross-linguistic case marking alignments. The S argument of an intransitive phrase and the A argument of a transitive sentence are case-marked identically by nominative case in the nominative-accusative pattern, which is typified by the lack of morphological marking. Overt accusative case marking on the O argument of a transitive clause is contrasted with this. The S argument of an intransitive phrase and the O argument of a transitive sentence in the ergative-absolutive pattern are both case marked similarly by absolutive case, which is typified by the lack of morphological marking. Overt ergative case marking on a transitive clause’s A argument contrasts with this.

Comrie (2013) proposes that a third sort of alignment, which he calls ‘neutral’, is exemplified by a language like Mandarin in his discussion of ‘main alignment types’. An alternate theory, which is corroborated by the data of the artificial and natural languages, holds that Mandarin lacks alignment because the morphological ways of conveying ‘who does what to whom’ have not been grammaticalized. In addition to splits between nominative-accusative and ergative-absolutive alignment patterns based on tense, aspect, there are also less common case marking patterns, such as a transitional tripartite pattern that uniquely case marks A, S, and O arguments, split-S patterns, fluid-S patterns, and active-stative patterns (Comrie 1978 and Dixon 1994).

The degree to which their case marking patterns deviate from canonical ergative-absolutive or nominative-accusative morphological alignments has been made clear by the recent emphasis on the use of naturalistic textual data in in-depth studies of TB languages (see LaPolla 1992, 1995, 2003; and Coupe 2007, 2011a, 2011b). It has been demonstrated that even a language like Tibetan, which was formerly widely described as a prototypical ergative language (DeLancey 1981; Dixon 1994; Miller 1996:757), deviates significantly from a systematic case-marking alignment based on the transitivity status of the clause (Tournadre 1991). The growing number of detailed grammatical descriptions that have emerged in recent years indicates that the pattern most common to TB is one in which non-syntactic factors motivate the presence or absence of core (agentive) case marking (LaPolla 1992, 1995, 2004). However, there are also compelling accounts of TB languages that do demonstrate a consistent, canonical pattern of ergative-absolutive case marking (Genetti 2007).

5. Case in Uchoi

Blake (2004:197) defines case as a method of designating dependent nouns according to the kind of relationships they have with their heads. Originally used to refer to inflectional systems, the phrase is occasionally used to refer to other systems, such as postpositional systems. In Uchoi cases are divided into eight distinct types, Nominative, Accusative, Genitive, Dative, Ablative, Locative, Instrumental and Associative.

5.1. Nominative Case

The nominative case refers to the surface subject of the verb. The basic function of nominative case is to mark the subject of the sentence. But in Uchoi, it is equal to the stem and bears the zero shape since it lacks an overt marker or case suffix.

1. *bo-Ø á ča-oi*
3SG fish eat-PRES
'S/he eats fish'
2. *ram-Ø iskul t^haŋ-oi*
ram school go-PRES
'Ram goes to school'
3. *abo-Ø krai klai-ye t^haŋ-hã*
DEM child fall-INC go-PST
'That child fell down'
4. *aŋ-Ø mai soŋ-oi*
1SG rice cook-PRES
'I cook rice'
5. *sita-Ø bazar t^haŋ-pai-ha*
sita bazaar go-COM-PST
'Sita had gone to bazaar'

From the above examples (1) to (5), it is evident that there is no nominative marker in Uchoi. So it is unmarked, meaning no suffix is added at the end of the noun.

5.2. Accusative Case

This word describes the form a noun phrase takes when it is the object of a verb in languages that use inflections to convey grammatical relationships. Accusative case, also known as objective case, employs nouns or pronouns that are the direct object—the person or item receiving the verb's action in a sentence. Languages like German and Latin alter word endings to denote the accusative, showing the receiver of the action or the object of specific preposition, while in Uchoi it is marked by suffix /-no/ attached to the direct object, mainly.

6. *abo krai-no reŋ-ga-di*
DEM child-ACC call-PTCL-IMP
'Call that child'
7. *ram sita-no mai ri-di*
ram sita-ACC rice give-IMP
'Ram gives rice to Sita'

8. *abo krai-no hoʔ-ga-di*
DEM child-ACC send-PTCL-IMP
'Send that child'
9. *ram sita-no hã-yauʔ-oi*
ram sita-ACC love-PTCL-PRES
'Ram loves sita'
10. *abo čala-no hospital hoʔ-ga-di*
DEM man-ACC hospital send-PRCL-IMP
'Send that man to hospital'

5.3. Genitive Case

Genitive case refers to the noun to which it is affixed is the possessor of something. Thus, a possessor-possessed connection is reflected in it. The noun in genitive case is always collocated with other nouns. The genitive case is realised by the suffix /-ni/.

11. *pata-ni bijap*
page-GEN book
'Page of a book'
12. *laksman-ni library le hakču-wo sei*
laxman-GEN library EQU far-LOC PTCL
'Laxman's library is far away'
13. *abo ram-ni kolon*
DEM ram-GEN pen
'That is Ram's pen'
14. *sita ram-ni bijap k^hau-oi*
sita ram-GEN book fetch-PRES
'Sita fetches Ram's book'
15. *bloŋ-ni sui-rau sriŋ-k^he toŋ-hã*
jungle-GEN dog-PL silent-do EXIS-PST
'Jungle's dogs remained silent'

5.4. Dative Case

The dative case, which is the case of the verb's indirect object, is typically connected to 'the act of giving'. When the case suffix is present in the indirect object of the same phrase, the direct object does not add it. It is written as /-no/ added to the pronoun or noun.

16. *bo-ni bijap aŋ-no ri-di*
3SG-GEN book (DO) 1SG-DAT (IO) give-IMP
'Give me her book'
17. *abo čala bo-no bijap ri-yauʔ-oi*
DEM man 3SG-DAT (IO) book (DO) give-PTCL-PRES

- ‘That man giver her book’
18. *ram sita-no kolon koŋ-ha ri-nai*
 ram sita-DAT (IO) pen (DO) CL-one give-FUT
 ‘Ram will give a pen to Sita’
19. *bo učloi aŋ-no čloi-ha ri-di*
 3SG seed (DO) 1SG-DAT (IO) CL-one give-IMP
 ‘She gives a seed to me’
20. *abo daktər bo-no mətʰi ri-yauʔ-mi*
 DEM doctor 3SG-DAT (IO) medicine (DO) give-PTCL-NF
 ‘That doctor gave her medicine’

5.5. Ablative Case

David Crystal (2008) rightly asserts that the ablative case as a grammatical category used in certain languages to express a variety of meanings. In languages like Latin, Sanskrit, and Turkish, the ablative case is a grammatical case that indicates interactions like movement ‘from’, which means (by/with), separation, cause, location, or comparison. It functions essentially as an adverb to express how, where, when, or why an action occurs. It is derived from the Latin form means ‘to carry away’, combining the functions of earlier cases (locative, instrumental) into one. It is frequently indicated by certain endings or prepositions, such as in, which can mean ‘in’ or ‘into’ depending on the case. In Uchoi the case is marked by the suffix /-ni/ as shown in the following examples.

21. *aŋ nouʔ-ni bakʰoʔ-ye pʰai-hã*
 1SG house-ABL move out-INC come-PST
 ‘I came out from the house’
22. *nuŋ iskul-ni bakʰoʔ-ye pʰai-oi*
 2SG school-ABL move out-INC come-PRES
 ‘You come out from school’
23. *abo broi library-ni bijap ri-yauʔ-mi*
 DEM woman library-ABL book give-PTCL-NF
 ‘That woman gave book from library’
24. *bo kuwa-ni twi kʰau-oi*
 3SG well-ABL water fetch-PRES
 ‘S/he fetches water from well’
25. *abo sui lama-ni pʰerau-ye pʰai-toŋ-hã*
 DEM dog road-ABL return-INC come-EXIS-PST
 ‘That dog came returning from the road’

Therefore, the ablative case in Uchoi acts as the case of separation from the source to perform the action as mentioned by the verb.

5.6. Locative Case

Crystal (2008) defines locative case as a grammatical case used to identify the location or spatial orientation of a state or action. In languages like Latin, Sanskrit, Russian, and Slavic it modifies the form of nouns and sometimes adjectives to convey where something is, providing spatial context and often used with certain prepositions or to indicate time. In Uchoi, it is expressed by adding the suffix /-wo/ to the noun.

26. *čun* *iskul-wo* *tʰaŋ-nai*
 1PL school-LOC go-FUT
 ‘We will go to school’

27. *gʰuri* *noukʰa-wo* *bi* *toŋ-oi*
 kite sky-LOC fly EXIS-PRES
 ‘Kite flies in the sky’

28. *aŋ* *iskul-wo* *tʰaŋ-hã*
 1SG school-LOC go-PST
 ‘I went to the school’

29. *bo* *bloŋ-wo* *tʰaŋ-hã*
 3SG forest-LOC go-PST
 ‘S/he went to the forest’

30. *aŋ* *nəja* *sabrum-wo* *tʰaŋ-hã*
 1SG yesterday sabroom-LOC go-PST
 ‘I went to Sabroom yesterday’

5.7. Instrumental Case

The instrument used to carry out an action denoted by the verb is indicated by the instrumental case. In other way, instrumental case is a case indicating that the referent of the noun it marks is the means of the accomplishment of the action expressed by the clause (Hartmann and Stork 1972:114). As a result, the instrument in this instance is related to the verb in the phrase. In Uchoi it is realised by the suffix /-bai/ attached to the nouns.

31. *bo* *slai-bai* *məša* *ma-ha* *kautʰa-hã*
 3SG gun-INS tiger CL-one kill-PST
 ‘S/he killed a tiger with a gun’

32. *aŋ* *katri-bai* *tʰaiču* *tʰan-oi*
 1SG knife-INS mango cut-PRES
 ‘I cut the mango with the knife’

33. *nun* *kolon-bai* *soi-oi*
 2SG pen-INS write-PRES
 ‘You write with a pen’

34. *bo* *tʰwŋni-bai* *ha* *kʰwlai-oi*
 3SG trick-INS it do-PRES

‘S/he does it with the trick’

35. *bo* *čabi-bai* *tala-no* *p^hiyau-di*
 3SG key-INS lock-ACC open-IMP
 ‘S/he opens the lock with the key’

5.8. Associative Case

In the associative case, the subject is accompanied by a human or an animal while doing the action. On the other hand, the associative case is a grammatical category which expresses the meaning of X and the group associated with X, where X is a nominal subject, typically human or animate. The suffix /-bai/ is used as an associative case marker in Uchoi.

36. *aŋ* *a-bai* *mai* *ča-oi*
 1SG fish-ASS rice eat-PRES
 ‘I eat fish with rice’

37. *bo* *a-ma-bai* *t^haŋ-hã*
 3SG PRO PRE-mother-ASS go-PST
 ‘S/he went with mother’

38. *nur* *wa-haŋ-bai* *baŋgui* *ča-hã*
 2SG pork-flesh-ASS sticky rice eat-PST
 ‘You ate sticky rice with pork’

39. *ram* *sita-bai* *iskul* *t^haŋ-nai*
 ram sita-ASS school go-FUT
 ‘Ram will go to school with Sita’

40. *aŋ* *mela-wo-bai* *bo-no* *t^haŋ-oi*
 1SG fair-LOC-ASS 3SG-DAT (IO) go-PRES
 ‘I go to fair with her’

It is evident from the above description that Uchoi has four distinct case markers to indicate the case relations and also has eight distinct cases. In Uchoi, the case is distinguished not by the form of the case suffixes but rather by the semantic link between the case-suffixed noun or pronoun and the verb. Despite their similarities, the case markers of accusative and dative, genitive and ablative, instrumental and associative are categorized as six different cases based on their meanings. The following table—1 shows the different cases in Uchoi with their markers.

Case	Marker(s)
Nominative	Ø
Accusative	/-no/
Genitive	/-ni/
Dative	/-no/

Ablative	/-ni/
Locative	/-wo/
Instrumental	/-bai/
Associative	/-bai/

*Table 1: Case markers in Uchoi***6. Case Syncretism in Uchoi**

M. Baerman (2009) states, case syncretism refers to the combination of multiple distinct case values into one form. According to this concept, case syncretism entails an observable asymmetry between paradigms within a language since distinct case values are established on a language-specific basis. The most possible pattern is that a single case form in one paradigm corresponds to several case forms in another. For instance, the singular paradigm of a-stem nouns in Sanskrit comprises eight different case forms, supporting the idea of eight different cases. However, many of these distinctions are lost in the non-singular paradigms, especially in the dual.

Sanskrit a-stem noun for the lexeme ‘god’

(Whitney 1889: 114-115)

‘god’	Singular	Dual	Plural
Nominative	devas	devāu	devas
Vocative	deva	devāu	devas
Accusative	devam	devāu	devān
Instrumental	devena	devābhyām	devāis
Dative	devāya	devābhyām	devebhyas
Ablative	devāt	devābhyām	devebhyas
Genitive	devasya	devayos	devānām
Locative	deve	devayos	devesu

Table 2: a-stem noun for the lexeme ‘god’

Baerman (2009) suggests, identifying a syncretic pattern as systematic still leaves open the question of which component of grammar encodes it, morphosyntax or morphology. According to the first interpretation, which owes a special debt to Jacobson (1936), syncretic case forms show some unity at the level of feature structure. As a result, we may assume that specific case values were actually collections of more abstract values. The second method treats syncretism as a purely morphological phenomenon, stating that the genitive and ablative have the same form regardless of their function. According to this interpretation, syncretism illustrates the independence of morphosyntactic and morphological structure.

Baerman, Brown and Corbett (2005) have expressed this ‘case-syncretism’ phenomenon from a typological perspective. They stated that languages can show four types of case-syncretism⁴ as—

- A. *Type 1*: syncretism of the core cases, i.e. the cases expressing the grammatical roles of subject and object.
- B. *Type 2*: syncretism of a core case with some non-core case. Typically it involves what some might call the ‘marked’ core case (accusative or ergative, as opposed to nominative or absolutive).
- C. *Type 3*: syncretism between non-core cases.
- D. *Type 4*: case syncretism compounded with some other feature, such as number.

In Uchoi, we can observe Type 1 i.e. syncretism of core cases, i.e. the cases expressing the grammatical roles of subject and object which overtly depends on transitive and intransitive. As we can see from example (20)—

20. *abo daktər bo-no mət^{hi} ri-yauʔ-mi*
 DEM doctor 3SG-DAT (IO) medicine (DO) give-PTCL-NF
 ‘That doctor gave her medicine’

In the above example, the dative case marker /-no/ is attached only with the indirect object (IO), whereas the direct object (DO) doesn’t inflected by case. The following table shows the schematic presentation of case-syncretism in Uchoi.

Case	Marker
Nominative	Ø
Accusative	/-no/
Dative	
Genitive	/-ni/
Ablative	
Instrumental	/-bai/
Associative	

Table 3: Schematic representation of Case-syncretism in Uchoi

7. Conclusion

It can be analysed from the above discussion is that Uchoi has eight distinct case such as nominative case (Ø), accusative case (-no), genitive case (-ni), dative case (-no), ablative case (-ni), instrumental case (-bai) and associative case (-bai). Though Uchoi has eight different cases,

⁴ According to Caha (2009:18), non-accidental case syncretism can be modelled by consecutive sections of what he refers to as the *case sequence*, as illustrated in (1) (see also Blake 2001:89, 155-160; ‘accidental’ syncretism(s) are the outcome of phonological processes). According to Caha’s theory, the hierarchy or sequence in (1) accurately indicates that nominative and genitive cannot be syncretic, while accusative and genitive can (Caha 2009:11). Caha refers to this generalization as *case contiguity*.

1. The case sequence (Caha 2009:18)
 nominative—accusative—genitive—dative—instrumental—comitative

interestingly it has only 3 distinct cases marked as nominative, and is unmarked. All the markers are in a suffixial position. This phenomenon has been discussed as case syncretism. The language doesn't follow either nominative-accusative or ergative-absolutive, overtly. As it is a part of transitivity that is not discussed in this paper. However, the language posits case syncretism. Therefore, the paper concludes with many unanswered questions, such as, whether the language shows optional ergativity, differential case marking in Uchoi, and the possible case alignment pattern (if any).

Abbreviations

3SG: third person singular	ACC: accusative case
CL: classifier	DAT: dative case
EXIS: existential copula	ABL: ablative case
FUT: future	GEN: genitive case
IMP: imperative	INC: instrumental case
INC: incomplete	LOC: locative case
NF: non-future	ASS: associative case
PRES: present	NOM: nominative case
PROG: progressive	
PST: past	
PTCL: particle	

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Domain Widening and Domain Restriction in Malayalam: *aar-um* vs. *aar-enkil-um*

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ABSTRACT

This paper investigates the semantic distinction between the two Malayalam counterparts of the English indefinite *any* — *aar-um* and *aar-enkil-um* — through the lens of domain widening theory as developed by Kadmon and Landman (1993) and subsequently refined by Aloni (2002). While both quantifiers can function as Negative Polarity Items (NPIs) and Free Choice Items (FCIs), this paper argues that a key difference between them lies in their domain properties: *aar-um* induces domain widening in a manner parallel to English *any*, ranging over a wider, contextually unrestricted set of individuals, while the conditional morpheme *enkil* in *aar-enkil-um* restricts the domain to a normal or explicitly delimited set. This domain restriction/widening asymmetry accounts for numerous distributional contrasts between the two items, including their behaviour in necessity modal contexts, partitive constructions, and episodic sentences. The paper also examines the role of subtriggering and proposes that *enkil* functions as an implicit subtriggering trigger in necessity modal contexts, explaining the unexpected grammaticality of *aar-enkil-um* in non-overtly-subtriggered necessity environments.

1. Introduction

The question of why a language possesses two lexical items that seem to have the same semantics and function has long been of interest in linguistic theory. In Malayalam, the two counterparts of the English indefinite *any* — *aar-um* and *aar-enkil-um* — present precisely this puzzle. Both items function as Negative Polarity Items (NPIs) and Free Choice Items (FCIs), and both occur across a wide range of syntactic environments. Yet they are not freely interchangeable. A systematic examination of the contexts in which one is permitted and the other is blocked reveals a principled asymmetry whose source, this paper argues, lies in the domain properties of the two quantifiers.

Kadmon and Landman (1993) were the first to introduce the notion of domain widening as the unifying semantic property of the English indefinite *any*. Their account links the grammaticality of *any* to the strengthening effect that domain widening creates in downward-entailing contexts. This paper applies and extends their framework to the Malayalam data, proposing that *aar-um* is the domain-widening counterpart while *aar-enkil-um* — by virtue of the conditional morpheme *enkil* — introduces a domain restriction. This is, to our knowledge, a previously unattested morphological mechanism for domain restriction in the literature on polarity-sensitive indefinites.

The paper proceeds as follows. Section 2 reviews Kadmon and Landman (1993) domain-widening account and Aloni's (2002) revision for possibility modals. Section 3 presents

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evidence from Malayalam for the domain asymmetry between *aar-um* and *aar-enkil-um*. Section 4 examines partitive constructions and the behaviour of the two quantifiers with necessity and possibility modals. Section 5 addresses episodic contexts and the asymmetric rescue effects of subtriggering. Section 6 concludes.

2. Domain Widening and the Semantics of any

Kadmon and Landman (1993) defined the semantics of any CN as the corresponding indefinite NP a CN with additional semantic and pragmatic characteristics — specifically, domain widening and strengthening — contributed by any. Consider their classic minimal pair:

(1a) *I don't have potatoes.*

'I don't have potatoes.'

(1b) *I don't have any potatoes.*

'I don't have any potatoes.'

In (1a), the domain of potatoes is contextually restricted to, say, edible potatoes. In (1b), any potatoes widens the domain to include even contextually marginal instances — rotten or spoiled potatoes. Widening enlarges the set of relevant alternatives and leads to a superset containing both relevant and irrelevant alternatives. According to Kadmon and Landman (1993), any is licensed only if its domain-widening creates a stronger statement, where strength is defined in terms of entailment. In a Downward Entailing (DE) context such as negation, widening the domain of an existential quantifier leads to a statement that is stronger. In a positive sentence, widening creates a weaker statement — which correctly predicts why **I have any potatoes* is ungrammatical.

However, Kadmon and Landman's (1993) account does not straightforwardly explain why FC any is grammatical in possible modal contexts such as *You can pick any card*, where domain widening does not create a stronger statement in the classical sense. To address this, Aloni (2002) revised the semantics of the possibility modal, proposing that possibility modal operators are universal operators over alternative propositions defined in terms of the possible values of any. This allows strengthening to proceed in the modal case: if one imagines that your mother is the most relevant person to come and your father the most irrelevant, *Anyone may come* implies both that your mother may come and that your father may also come. The same universal force does not apply to the necessity modal, which explains the ungrammaticality of **Anyone must come* in the unsubstituted case.

3. Domain Asymmetry in Malayalam: Evidence

With this theoretical background in place, let us examine the Malayalam data. The central claim of this paper is that *aar-um* induces domain widening in a manner parallel to English any, while the conditional *enkil* in *aar-enkil-um* restricts the domain rather than widening it. The evidence for this claim comes from several carefully constructed minimal contexts.

Consider first a context in which a mother and son are discussing the son's prospective marriage. The son has met five girls, of whom two are doctors, one an engineer, and two journalists. The mother's reply can be rendered using either quantifier:

(2) *doctor aaya aar-ey-enkil-um kalyaaNam kazhiccə-koLLuu*

doctor be who-ACC-if-CONJ marriage do-PERM

'Marry anyone who is a doctor (from amongst the girls you have met).'

(3) *doctor aaya aar-e-yum kalyaaNam kazhiccə-koLLuu*

doctor be who-ACC-CONJ marriage do-PERM

'Marry anyone who is a doctor.'

Example (2) with *aar-enkil-um* suggests that the mother intends the son to choose from among the two doctors he has already met — a restricted, contextually delimited domain. Example (3) with *aar-um*, on the other hand, gives the son a wider range: all possible doctors are a marriage option, not just the ones he has met so far. The domain of *aar-um* extends beyond the contextually explicit set, while *aar-enkil-um* remains anchored to it.

A second piece of evidence comes from a discourse context involving a job announcement:

(4) *ii jooli aar-kk-enkil-um ceyy-aam, ennu veccaal aar-kk-um ceyy-aan meelaa.*

this job who-DAT-if-CONJ do-MOD but who-DAT-CONJ do-MOD not

'Anyone can do this job, but that doesn't mean ANYone.'

(5) ** ii jooli aar-kk-um ceyy-aam, ennu veccaal aar-kk-enkil-um ceyy-aan meelaa.*

In (4), *aar-enkil-um* covers only a basic set of qualified individuals (those with the requisite skills), while *aar-um* in the second clause, stressed, refers to a wider domain that includes even individuals who would normally be outside the relevant set. When the positions of the two quantifiers are reversed in (5), the sentence is ungrammatical. This confirms the asymmetry: the domain of *aar-um* is wider than that of *aar-enkil-um*, and the two cannot be simply swapped without altering the discourse logic.

A third source of evidence comes from a magic-show scenario in which a magician addresses three audience members — Johny, Maria, and Thomas — and utters:

(6) *aar-kk-um ii kasaara-yil irik'k'-aam*

who-DAT-CONJ this chair-LOC sit-MOD

'Anyone can sit in this chair.'

(7) *aar-kk-enkil-um ii kasaara-yil irik'k'-aam*

who-DAT-if-CONJ this chair-LOC sit-MOD

'Anyone can sit in this chair.'

Sentence (6) with *aar-um* implies that in possible world W1, the magician gave all three members of the audience a chance to sit on the chair. The possible set of members who sat on the chair includes all subsets: {Johny}, {Maria}, {Thomas}, {Johny, Maria}, {Johny, Thomas}, {Thomas, Maria}, {Johny, Maria, Thomas}. For sentence (7) with *aar-enkil-um*, even though it is possible for any of the three members to sit on the chair, permission is given to only one among the three. The possible set reduces to the singletons: {Johny}, {Maria}, {Thomas}. The set-theoretic analysis thus confirms that *aar-um* ranges over a larger, widened domain, while *aar-enkil-um* ranges over a restricted, existentially delimited domain.

We can therefore conclude that *aar-enkil-um* ranges over a normal or regular domain that is explicitly stated or implicitly understood, while *aar-um* in Malayalam induces something similar

to domain widening, as proposed by Kadmon and Landman (1993) for English any. In other words, while *aar-um* ranges over the larger set, *aar-um* plus the conditional *enkil* (i.e., *aar-enkil-um*) restricts the domain. Rather than domain widening, we see a domain restriction, or narrowing of the domain, when the conditional *enkil* is attached.

4. Partitive Constructions and Modal Contexts

Dayal (2009) provides a characterisation of the situations which allow and disallow any in English: it is acceptable in generic statements (but not if it is a partitive phrase), with possibility modals, with necessity modals only if subtriggered, and in episodic statements only if subtriggered. Let us examine how the Malayalam counterparts behave in these same environments.

In partitive constructions, both *aar-um* and *aar-enkil-um* parallel the English any: neither is acceptable in a generic phrase that also contains a partitive element. Consider:

(8a) **ii peNNungaL-il aar-kk-um john-inə iSTam-aaNə*
these girls-LOC who-DAT-CONJ John-ACC like-be-PRES
'*Any of these girls like John.'

(8b) **ii peNNungaL-il aar-kk-enkil-um john-inə iSTam-aaNə*
these girls-LOC who-DAT-if-CONJ John-ACC like-be-PRES
'*Any of these girls like John.'

Both forms are ungrammatical in the partitive generic, mirroring the behaviour of English * Any of these girls like John. With possibility modals, both quantifiers are felicitous:

(9a) *John-inə ii peNNungaL-il ninnum aar-e-yum theraiñə eTukk-aam*
John-DAT these girls-LOC from who-ACC-CONJ choose take-MOD
'John may choose any of these girls.'

(9b) *John-inə ii peNNungaL-il ninnum aar-ey-enkil-um theraiñə eTukk-aam*
John-DAT these girls-LOC from who-ACC-if-CONJ choose take-MOD
'John may choose any of these girls.'

The critical divergence from English emerges in necessity modal contexts. In English, any is unacceptable with a necessity modal unless the sentence is subtriggered. In Malayalam, *aar-um* behaves as English any does — it is ungrammatical without subtriggering — but *aar-enkil-um* is grammatical even without overt subtriggering:

(10a) **John ii peNNungaL-il ninnum aar-e-yum theraiñə eTukk-aNam*
John these girls-LOC from who-ACC-CONJ choose take-MOD
'*John must choose any of these girls.'

(10b) *John ii peNNungaL-il ninnum aar-ey-enkil-um theraiñə eTukk-aNam*
John these girls-LOC from who-ACC-if-CONJ choose take-MOD
'John must choose any (one) of these girls.'

The same asymmetry is confirmed with a different predicate:

(11a) **amita ivar-il aar-e-yum iSTa-ppeTa-Nam*
Amita these-LOC who-ACC-CONJ like-MOD
'*Amita must like anyone.'

(11b) *amita ivar-il aar-e-enkil-um iSTa-ppeTa-Nam*
Amita these-LOC who-ACC-if-CONJ like-MOD
'Amita must like anyone/someone.'

Examples (10a)–(11b) establish that even without subtrigging, sentences with *aar-enkil-um* in necessity modal contexts are grammatical, while those with *aar-um* are not. This shows that it is not the partitive set that produces the subtrigging effect, but the conditional *enkil* itself. The proposal here is that *enkil*, being a conditional morpheme, introduces a restricted domain that parallels the subtrigging effect produced by a post-nominal relative clause modifier in other languages. This is analogous to the role of the subjunctive in Catalan, which Dayal (2009) shows produces a subtrigging effect that allows any to be felicitous in indicative-like contexts.

With subtrigging applied overtly, both quantifiers are felicitous in necessity modal contexts:

(12a) *kaaNu-nna aar-ey-um ram piTi-k'k'aNam*
see-PRES who-ACC-CONJ Ram capture-MOD
'Ram must capture anybody he sees.'

(12b) *kaaNu-nna aar-e-yenkil-um ram piTi-k'k'aNam*
see-PRES who-ACC-if-CONJ Ram capture-MOD
'Ram must capture anybody he sees.'

This confirms that subtrigging rescues *aar-um* in necessity contexts, and that *aar-enkil-um* does not need overt subtrigging in such contexts because *enkil* provides the subtrigging effect internally.

5. Episodic Contexts and Asymmetric Subtrigging

Any in English is disallowed in episodic contexts unless subtrigged. Both Malayalam counterparts are similarly unacceptable in episodic sentences:

(13a) **anjali aar-e-yum sahaayi-ccu*
Anjali who-ACC-CONJ help-PAST
'*Anjali helped anybody.'

(13b) **anjali aar-e-enkil-um sahaayi-ccu*
Anjali who-ACC-if-CONJ help-PAST
'*Anjali helped anybody.'

The question is then whether subtrigging rescues both items in episodic contexts, as it does in English (cf. Minnu helped any child that came up to her). The asymmetric answer is one of the most striking findings of this study. When subtrigging is applied:

(14a) *ii vazhi pooy-a aar-ey-um amita sahaayi-ccu*
this way pass-PAST who-ACC-CONJ Amita help-PAST

'Amita helped anyone who passed this way.'

(14b) **ii vazhi pooy-a aar-e-yenkil-um amita sahaayi-ccu*
this way pass-PAST who-ACC-if-CONJ Amita help-PAST

'*Amita helped anyone who passed this way.'

aar-um is rescued by subtriggering in episodic contexts (14a), while aar-enkil-um remains ungrammatical even with overt subtriggering (14b). This result is confirmed by a second pair:

(15a) *Jew alla-yirunna aar-ey-um avaL veRu-ttu*

Jew not-be who-ACC-CONJ she hate-PAST

'She hated anyone who was not a Jew.'

(15b) **Jew alla-yirunna aar-e-yenkil-um avaL veRu-ttu*

Jew not-be who-ACC-if-CONJ she hate-PAST

'*She hated anyone who was not a Jew.'

These results reveal an important asymmetry in the subtriggering behaviour of the two quantifiers. The conditional *enkil* in *aar-enkil-um* induces a subtriggering effect specifically in necessity modal contexts, allowing it to be grammatical there without overt subtriggering. However, this same *enkil*-induced subtriggering effect does not extend to episodic contexts. Furthermore, not only does *enkil* fail to produce subtriggering in episodic contexts, it appears to actively block the rescue that overt subtriggering would otherwise provide. *aar-enkil-um* is infelicitous in episodic contexts with or without subtriggering, while *aar-um* is rescued by overt subtriggering in episodic contexts.

This can be understood in terms of the domain properties proposed in Section 3. *aar-um*, being a domain-widening quantifier, is compatible with the subtriggering modification: the post-nominal modifier effectively provides the restriction on the domain that allows a strengthening statement to be formed even in an episodic context. *aar-enkil-um*, by contrast, already comes with a domain-restricting *enkil* that yields only existential force over a restricted domain. Episodic sentences assert that an event took place in the actual world at a specific time, and this assertion is incompatible with the conditional, possibility-implying semantics of *enkil*. Even when a post-nominal modifier is added to narrow the domain further, the existential force over a conditional domain that *enkil* contributes remains incompatible with the actuality requirement of the episodic predicate.

Context	aar-um	aar-enkil-um
Necessity modal contexts	*	ok
Subtriggered necessity modal contexts	ok	ok
Episodic contexts	*	*
Subtriggered episodic contexts	ok	*
Possibility/permission modals	ok	ok
Generic phrase + partitive phrase	*	*

Table 1: Licensing Conditions for *aar-um* and *aar-enkil-um*

6. Conclusion

This paper has argued that the semantic distinction between the Malayalam quantifiers *aar-um* and *aar-enkil-um* is best understood in terms of domain properties. *aar-um* induces domain widening in a manner parallel to English *any*, as formulated by Kadmon and Landman (1993), ranging over a set that extends beyond the contextually delimited set of individuals. *aar-enkil-um*, by contrast, ranges over a restricted, contextually explicit domain — a restriction produced by the conditional morpheme *enkil*. This domain restriction/widening asymmetry accounts for the quantifiers' divergent behaviour across partitive constructions, necessity modal contexts, and episodic sentences.

In necessity modal contexts, *enkil* functions as an implicit subtriggering trigger, making *aar-enkil-um* grammatical without overt post-nominal modification — a role parallel to the subjunctive in Catalan as described by Dayal (2009). In episodic contexts, this implicit subtriggering does not apply; further, even overt subtriggering cannot rescue *aar-enkil-um* in episodic sentences, because the conditional semantics of *enkil* is incompatible with the actuality requirement of episodic predicates. *aar-um*, being a domain-widening quantifier, is rescued by overt subtriggering in episodic contexts. The existence of two lexical items in Malayalam, this paper has argued, is thus not primarily to separate NPI from FCI function, but to encode a distinction between widened and restricted quantificational domains — a finding with broader implications for the typology of polarity-sensitive indefinites.

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Multi-Faceted Reading Assessments for Middle-Stage English Language Learners: A Contextualized Approach Based on National Curriculum Guidelines

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ABSTRACT

Assessing the development of reading skills is crucial for monitoring learners' progress, as it bridges the gap between current proficiency and intended literacy outcomes. In the absence of standardized tests to evaluate the required literacy skills, it becomes necessary to develop contextualized assessments/tests tailored to the specific needs of the research. This paper discusses the development of multi-faceted contextualized English reading tests for middle-stage (Grade 6, 7 & 8) learners of government-aided tea-garden schools of Assam, specifically designed to evaluate their achievement of the national reading-related learning outcomes outlined by the National Council of Educational Research and Training (NCERT), 2017, India. These multi-faceted tests were developed through a rigorous process involving surveying of literature, adapting existing test materials and creation of new items following the Conceptual Assessment Framework (CAF) of Evidence-Centered Design (Mislevy et al., 2003; Mislevy & Riconscente, 2005). Expert evaluation produced a Scale Content Validity Index (S-CVI/Ave) of 0.92, indicating strong agreement among the experts regarding the relevance and alignment of the tests with the required constructs; while a reliability analysis (n=46) resulted in high Pearson correlation coefficient values, demonstrating high consistency and effectiveness in evaluating learners' English reading outcomes.

1. Introduction

Assessing literacy skills among primary school children has become a global priority, particularly in low and middle-income countries (UNESCO, 2017). Standardized reading assessments such as the Early Grade Reading Assessment (EGRA, 2009), the Programme for International Learner Assessment (OECD, 2019), and the Annual Status of Education Report (ASER, 2014) have been instrumental in providing insights into children's English reading abilities. Though these tools have demonstrated their value in highlighting learning gaps, informing policy, and improving instructional practices, a critical challenge lies in ensuring that these assessments are contextually appropriate to children from diverse cultural and regional backgrounds. This linguistic and cultural diversity necessitates a deeper exploration of how English reading assessments can be adapted or developed to reflect learners' realities more accurately, aligning with principles of fair and equitable testing (AERA & APA, 2014) and addressing the specific challenges faced by culturally and linguistically diverse learners (August & Shanahan, 2008).

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The unique sociolinguistic and educational context of Assam, especially the government-aided schools in the tea-garden areas of Assam presents a compelling case for contextualized English reading assessments. These schools serve children from historically marginalized communities, many of whom are first-generation learners. These children often speak home languages that differ from the medium of instruction, which is also used to teach English in these schools, adding further challenges to their academic progress (Baruah et al., 2017; Sarma, 2011). A preliminary study conducted by the researcher revealed that the learners of these schools often faced difficulties in English reading which is characterized by incorrect pronunciation and the interview responses from the teachers revealed that even learners of Grade 8 struggle to read English text meant for their grade level (Gogoi & Nath, 2025).

According to the ASER (2022) report for Assam, only 50.6% of learners could read easy sentences in English, while 24.3% could read simple words, underscoring the significant learning gaps in foundational literacy. The National Achievement Survey (NAS) 2021 assessed learners' achievement of learning outcomes for Grades 3, 5, 8, and 10 across India, including Assam. For the middle stage, only Grade 8 learners' reading comprehension skills were evaluated, focusing on the ability to understand and interpret textual and non-textual materials. However, the report does not specify whether the assessment included all language subjects or targeted specific ones. The state average score for Assam was 48, below the national average of 53, highlighting gaps in reading proficiency and the need for targeted support. Additionally, the survey's focus on a single grade leaves a gap in understanding the reading abilities of learners in other middle-stage grades. This necessitates a deeper exploration of how English reading assessments can be adapted or developed to reflect learners' realities more accurately.

The National Council of Educational Research and Training (NCERT), 2017 has offered a valuable guideline for inclusive education. It outlines specific learning outcomes for language subjects at the elementary level (grade 1 to 8) for the Indian learners and suggests pedagogical strategies tailored to local contexts. It emphasizes:

...the pedagogical processes are suggestive The teachers may adopt/adapt and can even design many more as per the availability of resources and local context... Using contextual resources and appropriate learning processes, the teachers can design and provide a variety of learning situations/opportunities as per the need of different learners in an inclusive classroom...

(NCERT, 2017, p.11)

This flexibility underscores the importance of designing assessments that resonate with the local context and meet the needs of learners. Despite the availability of standardized assessments like ASER, these tools often lack the contextual adaptation needed to measure whether learners have achieved the specific reading-related learning outcomes outlined by NCERT (2017). Standardized tests that fail to account for local contexts may misrepresent learners' true reading abilities. Therefore, it is imperative to develop reading assessment tests that are both locally relevant and psychometrically sound. The process of test development also involves expert validation and rigorous testing for reliability and validity to ensure consistency and accuracy of results (Anastasia & Urbina, 1997).

Furthermore, development and adaptation of a test depends on various factors such as the source and target culture, the objectives of the researchers, etc. (Iliescu, 2017). In this study, the target group comprises the middle-stage (Grade 6, 7, & 8) English language learners (ELLs) of tea-garden area government-aided schools of Assam, and the objective is to evaluate whether the learners are able to achieve the NCERT-prescribed reading-related learning outcomes. Therefore, this research aims to address the gap in culturally responsive assessment practices and contribute

to more equitable measurement of reading abilities of ELLs of Assam. The study is guided by the following two objectives:

- To develop contextualized multi-faceted English reading tests for middle-stage ELLs of Assam to assess their attainment of national reading-related learning outcomes.
- To establish the validity and reliability of the newly developed multi-faceted English reading tests through expert review and field testing.

2. Methodology

2.1 Research Design

The development of the multi-faceted English reading test for middle-stage ELLs is systematically guided by the principles of Evidence-Centered Design (ECD) framework (Mislevy et al., 2003; Mislevy & Riconscente, 2005) and its three core interconnected models, namely Student, Evidence and Task Models which form the Conceptual Assessment Framework (CAF). While the broader ECD framework encompasses additional models (Domain Analysis, Domain Modeling, Delivery System Models, etc.), the three selected models are paramount for the initial development and preliminary validation phase.

2.2 Procedures

Before designing any assessment tasks, it was imperative to clearly articulate what was being measured. The principles of Student Model directly addressed this by defining the specific knowledge, skills and abilities (KSAs) – in this case, the national reading-related learning outcomes specified for grades 6, 7 and 8, which were then grouped under key reading skills – that the test aimed to assess. This initial step prevented construct drift and ensured that the test remained focused on its intended targets.

Once the target KSAs were defined, the next logical step was to determine what observable behaviours or performances would constitute valid evidence that a learner possesses those KSAs (the reading-related learning outcomes). The Evidence Model fulfilled this crucial role by identifying the observable variable and the scoring rule. This ensured that the assessment's scoring directly reflected the intended inferences about learner proficiency. For instance, a learner correctly answering a multiple-choice question about an inference from a passage, selecting the relevant synonym for a word, or correctly sequencing ideas based on a given passage, etc. would provide evidence on the attainment of the specified outcomes.

With a clear understanding of what to measure (Learner Model) and what observable evidence to look for (Evidence Model), the principles of Task Model then specified how to create assessment tasks/activities that would reliably elicit that evidence. This model guided the researcher in designing the specific test activities, passage selection, adaptation of existing assessments to local context, and others.

2.3 Validity and Reliability

After developing the multi-faceted English reading tests, they were subjected to validity and reliability tests. Four experts in the field of language testing and assessment from institutions across India evaluated the same to ensure content and construct alignment with the research objectives.

For administering the tests and analysing their reliability, a pilot test was conducted and informed consent was obtained from school authorities and parents to include middle-stage learners from government-aided schools in the tea-garden areas of Assam. A total of 46 learners

from two schools of Sivasagar district, Assam, participated in this study. Participants were selected using a simple random sampling technique, and the newly developed multi-faceted tests were administered in classroom settings toward the end of the 2024 academic session. The researcher also ensured that the participants' personal details were kept confidential.

2.4 Data Analysis

Data were analysed using the statistical software Statistical Package for the Social Science (SPSS) version 25, which was employed to perform correlation analysis on the newly administered tests. The analysis included calculating Pearson correlation coefficients to assess the strength and direction of the reading tests.

3. Development of the Multi-faceted English Reading Test

3.1 Grouping of reading skills

The reading process is built upon five fundamental components: phonological awareness, phonics, vocabulary, fluency, and comprehension (Armbruster & Osborn, 2003), and to be able to read and comprehend is one of the most important factors in mastering a language. In the context of language learning, reading means 'reading and understanding' (Ur, 2012). Children first need to "learn to read" so that they can "read to learn" (Macdonald, 1990; Pokharel, 2018). In other words, as learners advance through the grades, they are exposed to an increasing amount of academic content through text, and their capacity to learn new information and develop new abilities is heavily reliant on their ability to read and decode written text.

Since the target group is the middle-stage learners, the national level English reading-related learning outcomes for this stage of learners has been first grouped into five skills of reading, which come under the concept of 'reading to learn' (Richards, 2015).

Grouping of the English reading-related learning outcomes into key reading skills

Sl. No.	Reading Skills	English reading-related learning outcomes (national)
a.	Fluent reading	recites and shares poems, songs, jokes, riddles, tongue twisters, etc. reads aloud stories and recites poems with appropriate pause, intonation and pronunciation. uses synonyms and antonyms.
b.	Reading for vocabulary building	appropriately deduces word meanings from clues in context while reading a variety of text. infers the meaning of unfamiliar words by reading them in context. reads a variety of texts in English
c.	Reading for main ideas and for specific information	and identifies main ideas, characters, sequence of ideas and events and relates with his/her personal experiences.

		reads to seek information from notice board, newspaper, tables, charts, diagrams and maps etc.
d.	Critical reading	reads, compares, contrasts, thinks critically and relates ideas to life.
e.	Extensive reading	reads a variety of texts for pleasure e.g., adventure stories and science fiction, fairy tales, biography, autobiography, travelogue etc.

Table 1

To ensure consistency, the researcher has selected skills that are predominantly shared across all grade levels. Consequently, three out of the five skills have been prioritized for developing the test: Fluent Reading, Reading for Vocabulary Building and Reading for Main Ideas & Specific Information. The tests' activities have been designed in alignment with the desired national level English reading-related learning outcomes, taking into consideration at least one outcome from each skill.

3.2 Development of the 'Fluent Reading' test

For this test, the reading outcome reads aloud stories and recites poems with appropriate pause, intonation and pronunciation has been taken into consideration. To define fluent reading, whether aloud or silent, is the ability to read a text accurately, efficiently and with proper expression, serving as a bridge between word recognition and comprehension (National Reading Panel, 2000; Rasinski, 2004). However, to effectively evaluate learners' fluency, it is essential to assess their oral reading abilities. Accordingly, the test has been specifically designed to assess the oral reading fluency (ORF) of the learners.

Initially, it was essential to identify an appropriate standardized test for assessing the oral reading fluency (ORF) of middle-stage learners. After reviewing several standardized tests, the researcher has selected the ORF test guidelines and scoring materials from the Dynamic Indicators of Basic Early Literacy Skills (DIBELS), 8th edition (University of Oregon, 2021). This test is designed for English language learners from first to eighth grade. The DIBELS scoring booklet includes two assessments: the Oral Reading Fluency (ORF) test and the Maze test (a cloze-style test involving missing words). However, the researcher opted to adapt only the ORF section, as the primary objective is to evaluate learners' reading fluency. Before discussing the procedure for adapting the test, it is important to provide an overview of the Oral Reading Fluency (ORF) test from DIBELS. The ORF test involves a grade-level passage that learners are required to read aloud for 60 seconds. During this time, the number of words read correctly is recorded to measure fluency. Errors, such as mispronunciations, omissions, and substitutions, are also noted to calculate the accuracy rate. The accuracy rate is calculated as follows: $\text{Accuracy} = \frac{\text{words read correctly}}{\text{total words read}} \times 100$. The following figure shows the steps followed while developing the 'Fluent Reading' test, which has been then discussed:

Steps followed while developing the “Fluent Reading” test

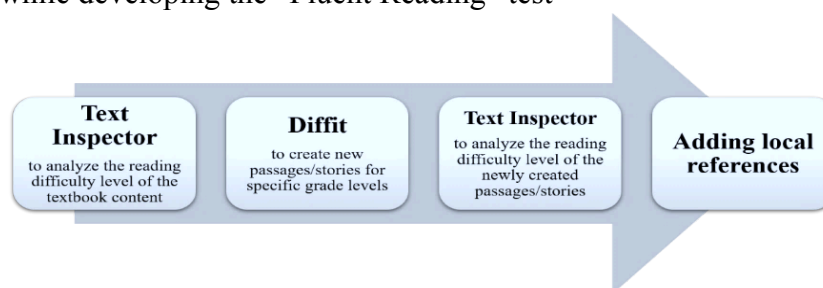


Figure 1

Step 1: Analysing difficulty level of the school textbooks' content

The passages provided in the DIBELS test materials for Grades 6, 7, and 8 are not suitable for learners in Assam, as they lack cultural and local relevance to the Indian context. Therefore, it was imperative to develop passages that reflect the cultural and regional experiences of the learners. Prior to designing these passages, it was necessary to analyse the difficulty level of the English textbook (Sunbeam English Reader) content currently used in the government-aided schools in Assam. To carry out this analysis, a professional online tool, Text Inspector, was utilized. This tool provides readability scores based on the Flesch-Kincaid Grade and the Gunning Fog Index. For this study, the Flesch-Kincaid Grade was selected as the metric for analysing the textbook content. Two lessons from each of the Grade 6, 7, and 8 textbooks were considered for the analysis, and the resulting readability scores are as follows:

Readability Score of Lessons from the School Textbooks

Grade level	Lesson Name	Flesch-Kincaid Grade
6	Pollution	6
	Dhyan Chand	8.26
7	Kindness	6.29
	Dhunu's Guitar	8.27
8	Dokchory Learns About the Panchayat	6.56
	A New Day, A New Way	8.95

Table 2

Step 2: Preparing passages similar to the difficulty level of the textbooks' content

To create the passages, the researcher initially utilized an AI educational web tool called Diffit, designed to assist teachers in developing differentiated activities tailored to various grade levels. The tool offers the option to generate content in two distinct forms: informational text and fictional text. Since the objective was to create story-based passages to engage learners and make the reading experience more interesting, the researcher opted for the fictional text format. Additionally, Diffit allows customization of content across grade levels ranging from kindergarten to 11+. For this study, grade levels 6, 7, and 8 were selected to align with the target learners.

After developing multiple passages based on fictional stories rooted in the local context, three passages were selected for three different grade levels. These passages were subsequently analysed (in Text Inspector) to determine their difficulty levels and to ensure alignment with the textbook content difficulty identified in Step 1. The analysis revealed that the newly created passages exceeded the target reading levels. This discrepancy may be attributed to the limitations of the tool, which is not optimized to generate content suited to the reading levels of learners in India, especially Assam. To address this, minor modifications were made to simplify the passages, ensuring they aligned with the desired difficulty levels. The final readability scores of the revised passages are presented below:

Readability Score of the Newly Created Passages

Grade level	Title of the passages	Flesch-Kincaid Grade
6	The Hidden Treasure	5.32
7	The Friendship Garden	6.85
8	The Lost Wallet	7.51

Table 3

Step 3: Adding local references to the passages

The newly developed passage for Grade 6, titled "The Hidden Treasure," narrates the story of a boy and his friends discovering a treasure and striving to keep it hidden from the greedy villagers. The narrative emphasizes the importance of valuing friendship over material wealth. To incorporate an Indian cultural context, names such as "Aryan," "Riya," and "Vikram" have been used, and the story is set in a village environment, reflecting the cultural and regional backdrop of Assam as well as India.

Similarly, the passage for Grade 7, titled "The Friendship Garden," is set in an urban Indian context and highlights the value of teamwork. The story incorporates characters with Indian names such as "Gauri" and "Meera," which are not only culturally familiar but also commonly found in tea-garden communities in Assam. This ensures relevance for the learners. Finally, the passage for Grade 8, titled "The Lost Wallet," focuses on themes of honesty and kindness. It narrates the story of a girl who finds a lost wallet and takes the initiative to return it to its rightful owner. To enhance cultural inclusivity, the surname "Gowala" has been used for one of the characters, reflecting the identities of learners from tea-garden communities in Assam.

3.3 Development of 'Identifying main ideas and specific information' test

The 'Identifying Main Ideas and Specific Information' test comprises four exercises, three of which have been designed based on the newly developed passages mentioned earlier. The fourth one however is not related to the passages. The details of all the tests are outlined below:

3.3.1 Comprehension questions

This exercise focuses on the reading outcome, reads a variety of texts in English and identifies main ideas & characters. The comprehension questions were developed based on three levels of Barrett's Taxonomy (1976): literal, inferential, and evaluative. As outlined previously, learners

are expected to progressively develop the ability to interpret meaning from text as they advance through the grades. Accordingly, for Grade 6, questions at the literal level were designed, focusing on basic recall and understanding of information from the respective passage. For Grades 7 and 8, inferential and evaluative questions were prepared, requiring learners to interpret, analyse, and critically evaluate the content. All questions were structured in a multiple-choice format to ensure clarity and consistency in assessment. The following examples illustrate the types of questions designed for each grade based on the corresponding passage and level of Barrett's Taxonomy:

Grade 6 (literal level): Where does Aryan spend time after school?

Grade 7 (inferential level): How did the neighbours contribute to the success of the garden?

Grade 8 (evaluative level): Why did Smriti refuse Mr. Gowala's offer of money as a reward?

3.3.2 Match the column

This exercise also focuses on the reading outcome, reads a variety of texts in English and identifies main ideas & characters and is designed primarily to assess whether learners can identify and associate the main ideas presented in each paragraph of the developed passages. To illustrate, the exercise for Grade 6 involves matching key ideas from each paragraph of the passage 'The Hidden Treasure' with their corresponding paragraph number:

Instruction:

Match the following ideas with the paragraphs in the story.

Main Ideas	Paragraph
Treasure found by Aryan and his friends	Paragraph 2
Gold and jewels covered from others	Paragraph 3
Aryan and his friends realize the value of friendship	Paragraph 1

3.3.3 Sequencing ideas

This exercise focuses on the reading outcome, reads a variety of texts in English and sequencing of ideas and events. This exercise focuses mainly on evaluating learners' ability to organize the sequence of events or ideas as presented in the passages. By arranging the key points or events in the correct order, learners demonstrate their understanding of the logical flow and structure of the text. As an illustration, the sequencing ideas exercise developed for Grade 7 is provided below to exemplify the structure and approach of this activity:

Instruction:

Here are some pieces of information from the story. But they are not in the correct order. Arrange the sentences in the correct order based on the story. Number the sentences as 1, 2, 3...to mark the sequence.

They planted flowers, vegetables, and fruit trees every day after school.

Gauri and Meera are best friends who love to spend time together.

They realised the power of teamwork and friendship.

The neighbours also joined in to help them.

They decided to turn an empty plot into a beautiful garden.

Flowers blossomed, and the garden became a peaceful place to relax.

3.3.4 Poster Reading

This exercise focuses on the reading outcome to seek information from notice board, newspaper, tables, charts, diagrams and maps etc. This was included to check whether the learners are able to seek the required information after reading the given poster. To cater to the varying proficiency levels, three distinct posters have been selected for Grades 6, 7, and 8, each accompanied by exercises designed to match the respective grade level. For Grade 6, a true-or-false exercise was provided, while fill in the blank exercises were used for Grades 7 and 8. The poster chosen for Grade 8 and its corresponding exercise is presented below as an example:

Instruction:

Here is a poster for inviting learners for a National Level Competition. Read it very carefully to fill in the blanks.



(Source: National Museum of Natural History website)

- This National level school competition is held for two categories, namely _____ and _____.
- The competition is held to commemorate _____.
- The theme for the poster-making competition is _____.
- The competition will allow only one _____ per learner.
- In order to participate in the competition, the learner must get a recommendation from the _____.

3.4 Development of 'Vocabulary Building' test

The 'Vocabulary Building' test consists of two exercises:

3.4.1 Synonyms and antonyms

This exercise is added to assess learners' ability to identify synonyms and antonyms, which directly focus on the reading outcome using synonyms and antonyms. The words for this exercise have been selected from the passages developed for each grade, ensuring alignment with the content and context of the reading materials. For Grade 6 and Grade 7, exercises focusing on synonyms were provided, while for Grade 8, an antonyms exercise was included to challenge higher-order vocabulary skills. An example of the synonym exercise designed for Grade 6 is provided below:

Instruction:

Read each of the following sentences. Find the meaning of the underlined word among the options. Tick the correct meaning.

The mango trees started to bear delicious fruits.

- a. bland
- b. bitter
- c. sour
- d. tasty

The tree whispered about a secret treasure to Aryan.

- a. complained
- b. spoke softly
- c. remained silent
- d. spoke loudly

3.4.2 Cloze test

This exercise evaluates learners' vocabulary and contextual understanding and focuses on the reading outcome infers the meaning of unfamiliar words by reading them in context. For this test, three additional different passages (related to Assam's popular geographical locations, monuments, etc.) were created using the Diffit tool. The passages were then simplified manually and tested for reading difficulty so that it matches the level of the learners. Later, for each passage, ten words were randomly omitted, and three multiple-choice options were provided for each blank, allowing learners to choose the most appropriate word to complete the sentences meaningfully. As an example, a part of the cloze passage developed for Grade 7 is presented below:

Instruction:

Fill in the blanks with suitable words from the brackets to make a meaningful paragraph.

“Majuli is a river island _____ in the Brahmaputra River in
(hidden, located, vanished)
Assam, India. It is the _____ river island in the world
(smallest, narrowest, largest)
and was _____ made a district in 2016. Majuli is a
(even, then, after)
beautiful place with lush _____ and is often called the
(green, scenery, greenery)
cultural capital of Assam. It is home to many tribes and has a _____ culture.”
(unique, common, ordinary)

4. Overview of the Developed Multi-Faceted English Reading Tests

The thorough structure of the newly developed multi-faceted English reading test, as detailed in Table 4, directly reflects how the researcher systematically applied the three core models of the Conceptual Assessment Framework (CAF): the Student Model, the Evidence Model, and the Task Model.

Draft structure of the newly developed multi-faceted English reading tests, aligned with the national reading-related learning outcomes.

Sl. No.	Reading Skills	Reading-related learning outcome focused	Types of tests Tasks/activities	Details of the tasks/activities	Grades Focused
1.	Fluent Reading	reads aloud stories and recites poems with appropriate pause, intonation and pronunciation.	Oral Reading Fluency	Timed reading of a passage for 60 seconds, followed by scoring based on speed, accuracy, and expression.	6, 7, 8
2.	Reading for Main Ideas and Specific Information	reads a variety of texts in English and identifies main ideas, characters, sequence of ideas and events	Comprehension Questions	Literal questions	6
				Inferential questions	7
				Evaluative questions	8
			Match the columns	Matching key ideas to corresponding paragraphs	6, 7, 8
			Sequencing Ideas	Arranging sentences or events in correct order based on the passage.	6, 7, 8
		reads to seek information from notice boards, newspapers, tables, charts, diagrams	Poster Reading	True or False	6
				Fill in the blanks	7 & 8

3.	Reading for Vocabulary Building	and maps etc.	Test of Synonyms and Antonyms	Identifying Synonyms	6 & 7
		uses synonyms and antonyms		Identifying Antonyms	8
		infers the meaning of unfamiliar words by reading them in context.	Cloze Test	Passages with ten omitted words and multiple-choice options for each blank.	6, 7, 8

Table 4

The Student Model, representing the specific national reading-related learning outcomes for Grades 6, 7, and 8, served as the foundational blueprint, identifying key reading skills such as fluent reading, reading for main ideas and specific information, and reading for vocabulary building.

Guided by this, the Evidence Model has been applied to specify the observable behaviours that would demonstrate attainment of these outcomes. For instance, "Fluent Reading" in the Learner Model will be evidenced by "speed, accuracy, and expression" during a "Timed reading of a passage for 60 seconds". Similarly, "Reading for Main Ideas and Specific Information" will be evidenced by correct responses to "Literal questions," "Inferential questions," and "Evaluative questions". The scores received by the learners for each task will provide evidence for the scoring rules.

Finally, the Task Model then prescribed the specific test activities and their details to elicit these defined pieces of evidence. For example, to gather evidence for fluent reading, the task is explicitly "Oral Reading Fluency". To elicit evidence for comprehension, the tasks include "Comprehension Questions," differentiated across grades (Literal for Grade 6, Inferential for Grade 7, Evaluative for Grade 8).

This deliberate, interconnected design, where each test type and its specific task details are carefully chosen to elicit pre-defined evidence related to targeted reading skills, ensures a coherent and valid assessment argument for the test's application across Grades 6, 7, and 8. A visual representation of the interconnected models has been shown in Figure 2 below.

Application of the interconnected CAF models in the preparation of the multi-faceted reading tests.

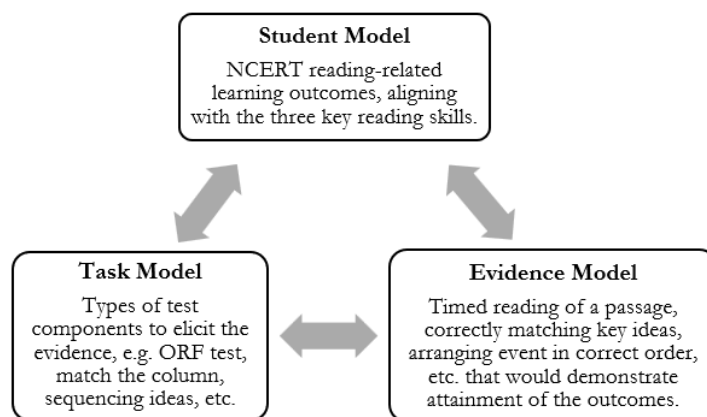


Figure 2

5. Expert Evaluation for Validity Test

Expert review is a critical component of the validation framework and is essential to ensure that test items adequately reflect the intended construct, especially in newly developed instruments (Polit & Beck, 2006; Sireci, 1998). To achieve this, the multi-faceted tests were evaluated by 4 experts from different institutions across the country, specializing in applied linguistics, language education and assessment. Each item was assessed on three key parameters: relevance, clarity, and coverage. The Item-level Content Validity Index (I-CVI) was then calculated for each test item based on the ratings provided by the four experts across the three criteria. Each criterion was scored on a 4-point Likert scale and the I-CVI scores were computed as follows:

- Scores for each criterion (relevance, clarity, and coverage) were summed for each expert.
- The total score for all criteria across the four experts was then averaged to calculate the I-CVI for the item.

In addition to providing numerical ratings, the experts offered comments suggesting specific changes to enhance the tests. For instance, Expert 1 and Expert 4 suggested that there should be some statistical balance between the parts of speech category which are to be filled in for the Cloze Test. Similarly, Expert 2 suggested improving the clarity of the posters to ensure learners could read them easily. These suggested changes were carefully incorporated into the tests to improve their quality.

The detailed summary of the I-CVI calculations for each test item, including the ratings given by the four experts across the three evaluation criteria is provided in Table 5.

The ratings on the test items by four experts

Item No.	Test Name	Expert 1	Expert 2	Expert 3	Expert 4	I-CVI
1.	Oral Reading Fluency	11	10	12	12	0.93
2.	Comprehension Questions	10	12	12	12	0.95
3.	Match the columns	12	12	12	12	1.00

4.	Sequencing Ideas	9	12	12	11	0.91
5.	Poster Reading	10	12	11	10	0.89
6.	Test of Synonyms and Antonyms	10	12	12	12	0.95
7.	Cloze Test	9	10	12	11	0.87
S-CVI/Ave						0.92
Proportion of Valid Items						1.00

Table 5

(Note: S-CVI/Ave = Scale-Level Content Validity Index)

The S-CVI/Ave in the above table was determined to be 0.92, which indicates a high level of agreement among the experts regarding the validity of the test items. Moreover, the proportion of valid items was computed to identify the percentage of items meeting the threshold for validity, which was set at I-CVI of 0.80 or higher. So, after evaluating, it could be seen that all items exceeded the threshold resulting in a score of 1.00, which confirms that all items are valid and relevant.

6. Pearson Correlation for Reliability Analysis

After being validated by experts, test items were administered to a total of 46 learners from two schools as part of a pilot study. To assess the reliability, a test-retest method was implemented with a two-week interval between administrations. Before conducting this test, it was necessary to check the normality of the data. Given the small sample size, the Shapiro-Wilk test was performed for this purpose. The results indicated that the p-values for both variables (0.060 and 0.115) were greater than 0.05, suggesting that the data followed an approximately normal distribution. Therefore, the parametric test, Pearson Correlation Coefficient, was conducted to evaluate the relationship between the variables. The table below presents the outcomes of the reliability analysis:

Outcomes of the reliability analysis for the three categories of reading tests

			Test Round 1	Test Round 2
Fluent Reading	Test Round 1	Pearson Correlation	1	.957**
		Sig. (2-tailed)		.000
	Test Round 2	Pearson Correlation	.957**	1
		Sig. (2-tailed)	.000	
Vocabulary Building	Test Round 1	Pearson Correlation	1	.825**
		Sig. (2-tailed)		.000
	Test Round 2	Pearson Correlation	.825**	1
		Sig. (2-tailed)	.000	

Main Ideas & Specific Information	Test Round 1	Pearson	1	.906**
		Correlation Sig. (2-tailed)		.000
	Test Round 2	Pearson	.906**	1
		Correlation Sig. (2-tailed)	.000	

Table 6

**Correlation is significant at the 0.01 level (2-tailed)

The Pearson correlation analysis shows a very strong positive correlation, where r values ranges from 0.825 to 0.957 between the two rounds of the test, indicating a high level of consistency in learners' scores across administrations. The significance value ($p = 0.000$) is well below the 0.01 threshold, confirming that the correlation is statistically significant.

7. Conclusion and Implications

The study highlights the development of a contextually relevant multi-faceted English reading test tailored to the specific needs of the research. Following the principles of CAF, these tests align closely with the learning environment and objectives, ensuring that the evaluation methods are both meaningful and effective in measuring the desired outcomes. Given the scarcity of standardized reading tests that evaluate the intended national level reading-related learning outcomes, particularly for learners in Assam, it was essential to create context-specific tests to bridge this gap. These tests were designed not only to measure whether learners are able to achieve the expected learning outcomes but also to align with the curriculum and the local context, incorporating reading references that are familiar and relatable to learners in the tea-garden area government-aided schools of Assam.

The methodology outlined above can work as a replicable framework for other researchers/educators across India's diverse educational landscape, seeking to develop contextualized multi-faceted assessment tailored to their own research contexts. To provide additional clarity for the readers, the reading tests developed for Class 8 have been uploaded in google drive of the researcher and can be accessed through the given QR code. The drive folder includes two separate documents, Section 1 for Fluent Reading test and Section 2 for Reading for main ideas and for specific information tests and Reading for Vocabulary Building tests, respectively.

QR code to access the newly developed contextualized multi-faceted English reading test for Grade 8:

**Figure 3**

Additionally, development of these contextually relevant multi-faceted English reading tests carries significant implications for various stakeholders. For educators, these tests can provide diagnostically rich insights into learners' specific reading strengths and weaknesses, which will

enable them to effectively plan instructional strategies, particularly for learners from marginalized communities. For educational policy makers at state and national level, the study underscores the imperative of developing locally relevant and contextually sound assessments that accurately reflects the unique cultural realities of diverse learners, rather than relying on non-contextualized standardized tests. Furthermore, this study opens avenues for future studies focusing on broader validation of the assessments, exploring the long-term impact on teaching and learning of English.

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A Semantic Typology of Adjective Classes in Ho

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ABSTRACT

The existence and function of adjectives vary significantly across the world's languages, leading to fascinating cross-linguistic debates and classifications. The current research focuses on Ho, a language primarily spoken in India's West Singhbhum district of Jharkhand, with a total of over 1.4 million speakers (2011 census). The research addresses the existing scholarly debate among linguists over the status of the adjective as a separate word class in Ho and other North Munda languages. Challenging long-held assumptions, it attempts to find evidence on whether or not Ho has a separate word class for adjectives by employing Dixon's (2004) Semantic typology framework. The study uses a two-phase data collection method: analysing existing Ho grammar books and dictionaries, followed by fieldwork to gather data through questionnaires and interviews. The findings contribute to the broader typological understanding of adjective classes in Ho.

1. Introduction

Despite their fundamental grammatical status, Adjectives possess a large inventory whose size is highly inconsistent across the world's languages, a phenomenon that contrasts with nouns and verbs, which are nearly universally large and open grammatical categories. This variability, coupled with the observed categorical flexibility of adjectivals, naturally raises the central linguistic question: How are adjectives formally defined, and what are their fundamental characteristics?

Traditionally, Bhatt (1994) considered adjectives to be 'property-words'. And when it came to distinguishing nouns from adjectives "Both the ancient grammar of Sanskrit by Panini and the early grammars of Greek and Latin, which began the western tradition, failed to make any distinction between noun and adjective" (Dixon, 2004, as cited in Dixon & Aikhenvald, 2004: 12). The key distinction was later established by Thomas of Erfurt, noting that while nouns have inherent gender, adjectives lack this property and can only show gender agreement with the noun they modify. This finding was a crucial step in identifying that even though adjectives share morphological properties with nouns, they are a distinct word class (Dixon, 2004, as cited in Dixon & Aikhenvald, 2004: 12).

In many languages, adjectives display remarkable flexibility, blurring the lines between grammatical categories. Hence, the treatment of adjectives varies across different language families. For example, the Indo-European languages like English, Spanish and French are considered to have a large open class of words dedicated solely to expressing properties, and they fulfil both the attributive and predicative roles. While there are other language families like Austroasiatic with a small or no distinct adjective class (verb-based type). The Austroasiatic languages are divided into three distinct typological subgroups, reflecting the three geographic

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areas of the Austroasiatic speaking region: the Nicobarese, Mainland Southeast Asia and the Munda. Found in central and eastern India, the Munda languages are consistently verb-final and agglutinative, characterized by a large number of affixes that express derivational processes alongside case relations with nominal and tense-aspect. The Munda branch includes 11 languages, all spoken across eastern and central India (Jenny & Sidwell, 2014). Ho falls under the North Munda branch of the Austroasiatic language family (Zide, 1969). Spoken by over 1.4 million people, the Ho language is primarily used in Jharkhand's West Singhbhum district, India (2011 census). Despite this significant number of speakers, UNESCO has classified the language as potentially vulnerable, and it remains underdocumented.

The build-up of the Ho language is quite different from that of any language of the Indo-European group (Latin, Greek, Sanskrit, Hindi, Bengali, English, etc.). In many ways, it is simpler and calls for far less memory than these languages. There is almost perfect regularity, and all grammatical functions are achieved by manipulating markers, which are usually monosyllabic. There is no gender to worry about, no principal parts of verbs, no declensions of nouns, nor conjugations of verbs; the same root is used for a noun, verb, and adjective; all causatives are formed by the same process (Deeney, 1975: 4).

Below are some key features of the Ho language given by Deeney (1975):

1. They have some primary root words that maintain their grammatical class and can simultaneously function as nouns, verbs, or adjectives.
2. The use of three numbers: singular, dual, and plural.
3. They use Separate forms for the first-person dual and plural ("we") depending on whether the person being spoken to is included or not.
4. They make a distinction between animate and non-animate nouns.
5. They don't have relative pronouns; instead, participial forms are used.
6. They use postpositions (words placed after the noun) instead of prepositions (words placed before the noun).
7. A special marker is placed within the verb to indicate when the grammatical object is an animate being.

According to Deeney (2002), unlike other languages, which distinguish masculine, feminine, and neuter, grammatical gender in Ho distinguishes animate and inanimate nouns. In Ho, animate beings are defined as those with animal or intellectual life. While plants are categorized as inanimate, the animate class also includes celestial bodies (such as the sun, moon, and the stars) and natural phenomena (such as rain and hail). The same root can often have a noun, verb, and adjective usage, e.g. /tʃakad/ could mean deceit, to deceive, and deceitful. However, most roots are primarily nouns, verbs or adjectives, e.g. /ho/ 'man', /ipil/ 'star' are primarily nouns; /hudzu/ 'come', /kadzi/ 'say', are primarily verbs; /bugi/ 'good', /hurin/ 'small' are primarily adjectives.

The Ho language lacks adjectival inflection for both gender and number. This can be observed by the examples provided. In the first example, /bugin koa hon/ 'good boy' and /bugin kui hon/ 'good girl', the adjective /bugin/ 'good' remains invariant despite the gender change from masculine /koa/ to feminine /kui/, which is in contrast to inflecting languages. Similarly, in the second example, /hende sutui/ 'black cloth' and /hende sutuiko/ 'black clothes', the adjective /hende/ 'black' retains its form even when the noun's number changes from singular /sutui/ to plural /sutuiko/ by the addition of the plural marker /ko/. These instances highlight a core morphological feature of the language, which is the non-inflectional nature of its adjectives, a trait that sets it apart from many languages that mark these grammatical categories.

As adjectives are necessarily limited to words denoting qualities, and as the word /etkan/ ‘bad’ and /bugin/ ‘good’ are used so as to embrace most vices and virtues, the operation of this rule is more common as between nouns and verbs, e.g. /oa/ ‘a house’, to make a house; /jarom/ ‘an egg’, to lay an egg. Other parts of speech may be used as verbs in the same way. Thus, /ea/ ‘yes’ means also ‘to agree’, /parom/ ‘across’ means also ‘to cross’ and /aer/ ‘before’ means also ‘to precede’. This transferability is one of the features of the language and is extremely useful in practice (Burrows, 1915:19).

This research is particularly relevant due to the existing debate among scholars, including Hoffman (1903), Burrows (1915), Deeney (2002), Anderson (2008), and Pucilowski (2013), regarding whether or not Ho and other North Munda languages have distinct word classes, particularly adjectives. A central point of scholarly debate in Munda linguistics highlights a fundamental question about the morphological structure of these languages. The precedent for this type of focused analysis was set by Pinnow's (1966) study on Mundari verbs. It was one of the significant studies that demonstrated the rich morphological complexity of the family and provided data on Mundari verbs, with numerous affixes, infixes, incorporated pronouns, and reduplication. He used his analysis of verb morphology to argue for the genetic unity of Munda languages and their relationships to the larger Austroasiatic language family.

Following this model, a close examination of adjectives is therefore crucial. This paper aims to contribute by providing a detailed analysis based on Dixon's (2004) Typological semantic classifications of adjectives, as well as an examination of other word classes that function as adjectives in the Ho language. By doing so, it will offer a better understanding of Ho's morphological structure and grammatical categories, thereby providing valuable data for the ongoing scholarly debate on the nature of word classes in North Munda languages.

The paper is organized as follows: The next section discusses the methodology adopted in the present study. The third section is dedicated to a review of the literature, which discusses all the relevant works on Ho. The fourth section discusses adjectives and how they are a distinct word class from nouns and verbs. It basically outlines the criteria proposed by Dixon (2004) for establishing the roles that an adjective class plays in a language and applies those criteria to identify adjectives in Ho. The fifth section investigates the various types of adjectives classified semantically according to Dixon (2004) and presents a table of Ho adjectives for each semantic category. The sixth section discusses other grammatical classes, such as nouns and pronouns, that can function as adjectives in Ho. The final section summarizes the main findings and points out the key contributions of the study.

2. Methodology

Based on Perumalsamy (2021), the Ho language is spoken in several districts of Jharkhand, including East Singhbhum, Bokaro, Ranchi, Saraikela, and Dhanbad. However, this study focuses on the variety of Ho spoken in the West Singhbhum district, which has the highest concentration of Ho speakers. The study utilizes a descriptive methodology centred on data analysis. The data collection process occurred in two distinct stages. The initial phase involved an examination of secondary sources, beginning with an analysis of existing Ho grammar books and dictionaries by Deeney (2002), Sinku (2013), Purty (2017), and Bodra (2023). This analysis aims to identify adjectives (property concepts), which were typologically classified according to Dixon's 13 semantic types. The second phase consisted of fieldwork conducted in seven blocks of the West Singhbhum district: Chaibasa, Jhinkpani, Tantnagar, Manjhari, Kumardungi, Tonto, and Hatgamharia. A sample of 20 native speakers was chosen from each block, resulting in a

total sample size of 140 individuals, with no consideration for age or gender. The data were gathered using questionnaires and interviews.

3. Review of Literature

Hoffman (1903) argues that in Mundari, words do not belong to a specific category on their own. Instead, the same word can serve as a different part of speech including a noun, verb, or adjective based solely on how it is employed in a sentence. He described these words as "elastic" and without a fixed meaning until they are put into a sentence.

According to Evans and Osada (2005) distinct word classes are present in Munda languages, challenging earlier views. They argue that even though some words can be used in different ways, this flexibility is not consistent throughout the language. For example, while it is common for nouns to be used like verbs, the reverse is much less frequent. This uneven behavior led them to conclude that separate word classes do exist.

In his work, Burrows (1915) acknowledged Ho's distinct adjective class. He observed that Ho adjectives are invariable, meaning they do not inflect for the gender or number of the qualified noun. He states that adjectives in Ho may, without any change of form, be used as nouns or verbs. Critically, he pointed out that the original Ho root is highly versatile, capable of functioning as a noun, verb, or adjective without morphological alteration. The only exceptions he discussed involve the formation of certain adjectives by the suffixes /n/ and /an/ to a few existing verbs and nouns. The final point in Burrow's work focuses on the comparison of adjectives, which is quite similar to the Hindi language. He provides six examples to show how the positive, comparative, and superlative degrees work in the Ho language.

Deeney (2002) discusses the adjectives that appear before the modified word and maintain an unchanging form regardless of number. His work covers some more topics, like the comparison of adjectives and the conversion process of an adjective from a noun. Deeney further mentions affixes like /no:/, which can be attached to qualify the intensity of adjectives in Ho.

Anderson (2008) details two key features of adjectives: their modification by degree adverbs like /esu/ 'very', and the use of stem doubling for emphasis. Furthermore, Pucilowski (2013), sought to demonstrate the existence of a small adjective class by employing the distributional approach to word classification (cf. Bloomfield 1933; Hockett 1958), aligning with the methods of Dixon (1977, 2004) and Croft's (1991, 2001)

4. Adjectives and their roles

While noun and verb classes are typically large and open across most languages, the size of the adjective class can vary considerably. Regardless of their size, adjectives are generally derived from existing nouns and/or verbs. According to Givón (1970), typically, a higher proportion of adjectives than of nouns and verbs will be derived forms. When it comes to grammatical properties and roles, adjectives vary widely when compared to those of nouns and verbs.

4.1. Role of an adjective in a language

Dixon (2004) highlights four key roles for adjectives in a language:

1. Stating a Property (Predicate Function)
2. Modifying a Noun
3. Comparison
4. Modifying verbs or adjectives

4.1.1. Stating a property

According to Dixon (2004), this can happen in two ways:

i) The Adjective Functioning as an Intransitive Predicate:

Here, the adjective acts like a verb. It stands alone as the central part of the sentence, conveying the action or state of being. The extra verb like "is" or "are" is not needed; instead, it might take on verb-like features, such as suffixes for tense (past, present, future), aspect (whether an action is ongoing or completed), or mood. For instance:

1. oa maran-a
 house big-FIN
 ‘The house is big.’

2. ram muruku-e
 ram fool-FIN
 ‘Ram is foolish.’

Like examples no. 1 and 2 show, that the adjectives /maran/ and /muruku/ itself is the predicate here. These adjectives act grammatically as verbs and affix finite markers /a/ and /e/ to them.

ii) The Adjective Functioning as a Copula Complement:

This system is found in English and many other languages. Here, the adjective does not act as the main verb itself. Instead, it is a complement that completes the meaning of a linking verb called a copula (like "to be" or "to become"). The copula is the actual verb, and the adjective provides the quality of the subject. For example:

3. ram muruku tan-a
 ram fool COP-FIN
 ‘Ram is foolish.’

4. nen oa nama ge-a
 this house new COP-FIN
 ‘This house is new.’

Example no. 3 and 4 show instances where adjectives can sometimes function as copula complements. The above sentences are formed with subjects (/ram/ ‘ram’, /oa/ ‘house’), copula (/tan/ and /ge/), and the adjective (/muruku/ and /nama/). The copula is the actual verb here, while the adjective provides the quality of the subject. Evidently, Ho aligns with languages in which an adjective can serve as both an intransitive predicate and a copula complement.

4.1.2. Modifying a noun

This function involves using an adjective to describe a noun within a larger phrase, typically to help identify or specify which noun is being discussed. This is the most common and well-known role of an adjective, where an adjective is used to describe a noun within a phrase to specify what is being talked about.

5. ram bugin ho tan-a
 ram good man COP-FIN
 ‘Ram is a good man.’

6. gaɽa- re esu maran haku-ko mean?-ko-a

river-LOC very big fish-PL COP-3PL-FIN
 ‘The river has very big fishes.’

In examples no. 5 and 6, adjectives like /bugin/ and /maran/ are placed near nouns /ho/ and /haku/ to add details or modify them. This detail helped to narrow down the meaning of the noun. The adjective here doesn't state a full thought or sentence on its own; it's a part of a larger phrase.

4.1.3. Comparison

There are 3 types of Adjectival degrees for comparison: Positive, Comparative and Superlative. It is used to compare nouns of the same category. “We use comparative adjectives to compare one (or more) things or people, and the superlative adjectives to distinguish one thing or person from a number of others” (Foley & Hall, 2003).

4.1.3.1. Positive Degree

The first level of comparison is the positive degree. This is used only to explain any qualities that are present in a phrase or sentence.

For example:

7. ram salangi taikena
 ram tall COP.PST
 ‘Ram was tall.’

Here, the adjective /salangi/ merely tells us Ram's quality of being tall.

4.1.3.2. Comparative Degree

The second level of comparison is the comparative degree. It is used when two things or a set of things are compared. In this degree of comparison, /ete/ is affixed to a noun which is being compared.

For example:

8. ram aiŋ-a dzuŋi-ete salangi taikena
 ram 1SG-POSS friend-COMP tall COP.PST
 ‘Ram was taller than my friend.’

For example, no. 8, -ete is suffixed to /dzuŋi/ because ram is being compared with /dzuŋi/ ‘friend’, whose height is shorter than ram's. However, the Adjective /salangi/ remains the same because in Ho, -ete is suffixed only after the thing that is being compared to the subject.

4.1.3.3. Superlative Degree

The third level of comparison is the superlative degree. It showcases the highest degree of quality. It is used when more than two things or a set of things are being compared.

For example:

9. ram sabin-ko-ete salangi taikena
 ram all-PL-COMP tall COP.PST
 ‘Ram was taller than everybody.’

Here, in example no.9, -ete is affixed with the word /sabenko/ 'everybody' because Ram is being compared with everybody to show the greatest degree of comparison. In English, adjectives like tallest, smallest, and biggest, etc, are used for a superlative degree of comparison.

4.1.4. Modifying Verbs or Adjectives

Unlike English, Ho doesn't have a direct equivalent of where an adjective modifies another adjective in the same way (like "light green", "royal blue" or "ice cold"). In Ho, this relationship is typically expressed through other means, such as using a different word, a compound word, or a simple descriptive phrase.

In the next section, the paper discusses Ho adjectives following the Semantic framework proposed by Dixon (2004).

5. Types of Adjectives

"At a general level, adjectives gain this capability in virtue of two main characteristics, one of which is semantic and one of which is syntactic" (Kennedy, 2012: 328). In this section, the study focuses on the semantics of adjectives in Ho. Dixon (2004) argues that in every language the lexical roots can be categorized into several semantic types. Noun classes can be classified semantically into Flora (e.g. 'flower', 'leaf'), Fauna (e.g. 'fish', 'horse'), Celestial (e.g. 'star', 'moon'), Humans (e.g. 'boy'), body and other parts (e.g. 'leg', 'hand'), Environment (e.g. 'water', 'forest') and Artefacts (e.g. house). etc. Verbs can also be divided into Motion (e.g. 'run', 'stand'), Rest e.g. 'sit', 'sleep'), and Speaking (e.g. 'tell', 'shout', 'ask'), etc. Likewise, Dixon classifies adjectives into 13 types. Of these, he identifies four as "core": Dimension, Age, Value, and Colour. These core types are consistently found in both large and small adjective classes and are present in nearly all languages, even those with very few adjectives.

Ho, as studied here, contains all four of the core semantic adjective classifications. It has nine members that express *Dimension*, including examples such as:

/osar/ 'wide', /marəŋ/ 'big', /batari/, /resed/ 'narrow', 'thin', /ikir/ 'deep', /huŋiŋ/, /tumbɾub/ 'short', /hiŋeŋ hoŋoŋ/, /dzindəl/, /busar/, 'loose, baggy', /ibil/ 'thick', 'dense', /dziliŋ/ 'long' and /huŋiŋ/, 'small, tiny'.

In the semantic category of *Age*, Ho has three members. The words for 'young' are /huŋiŋ/, /bale/ and /undzi/; the words for 'old' are /papari/ and /ha:m/; and the word for 'new' is /nama/.

In the category of *Value*, Ho contains five members. These include words for 'beautiful' and 'lovely' /tʃera/, 'harmful' and 'evil' /loskan/, /edka/, 'sincere', 'pure', and 'honest' /niral/, /partʃi/, 'good' /bugin/, and 'bad' /edka/.

Lastly, Ho has three basic colour terms, such as /hende/ for 'black', /pundi/ for 'white' and /dzɛŋga/or /araʔ/ for 'red'. Other colours are named after natural objects. For example, the colour green is represented by two terms: /pata rɔŋg/, which translates to 'leaf colour', or /gaded/, which means the algae found in ponds. Similarly, the colour yellow, /sasaŋ/, is derived from the word for turmeric. The remaining colour terms, such as /nil/ 'blue' and /gulabi/ 'pink', are loan words from Hindi.

The second group (*Physical Property, Human Propensity, and Speed*) are typically found in languages with a more developed or larger inventory of adjectives. Basically, when a language's adjective class grows to a medium or large size, it begins to include words from a second group of semantic types: Physical Property (e.g., 'heavy', 'smooth'), Human Propensity (e.g., 'happy', 'jealous'), and Speed (e.g., 'fast', 'slow'). According to this study, it was found

that the Physical Property category contains the most adjectives in this group, with a maximum of twelve members. This makes it the most productive category for adjectives in the Ho language, as other categories have fewer words. For instance, /hambal/ 'heavy', /lebe?/ 'soft', 'gentle', /nogod/ 'sweet', /leser/ 'sharp', /sapa/ 'clear', 'clean', /keɽe/ 'hard', 'strong', /moroe?/ 'sour', /nama/ 'new', /ragam/, /raga tʃoga/ 'coarse', 'rough', /lum/ 'wet' and /lolo/ 'hot'. Human Propensity, on the other hand, has six members such as /tedʒ/ 'sharp', 'intellect', /giu/ 'ashamed', /muruku/, /dondʒo/ 'foolish', /erel/ 'jealous', /suku/, /rāsa/ 'happy' and /mamaran/ 'proud'. Unlike other categories, Ho's representation of the Speed category is limited, with only two members: /sue/ 'slow' and /andʒa/ 'fast'.

The third group consists of *Difficulty*, *Similarity*, *Qualification*, *Quantification*, *Position* and *Cardinal numbers*, which are only found in large classes in some languages. In essence, the presence of these latter categories is an indicator that a language has a more extensive and complex system for adjectives. Based on the study, Ho has two members to express Difficulty: /keɽe/ 'hard' and /lar/ 'easy'. The category of Similarity also has two members: /leka/ for 'like' or 'similar' and /kisum kisum/, /kili mili/ and /tanga tanga/ for indicating 'different' or 'various'. Similarly, the semantic type of Qualification has two members: /lali/ for 'sufficient' and /sari/ for 'true'. The category of Quantification, on the other hand, has five members: /saben/ 'all', /esu pure/ 'a large quantity', /sama/ 'only' /dʒoka/ 'some' and 'few', /iminange/ or /lali/ for 'enough'. In contrast, the semantic type of Position is well represented, with a significant number of thirteen members. Examples include: /latar/ 'below', /biter/ 'inside', /tala/ 'middle', /tʃanab/ 'backward', /tʃetan/ 'high', /saniŋ/ 'far' or 'distant', /dʒapa/ 'near', /lenŋa kuɽi/ 'left', /mandi kuɽi/ 'right', /siŋgi ol/ 'east', /bo: kanɽua/ 'south', /kaɽa tʃambara/ 'north', /siŋgi hasur/ 'west'. Ho has a large number of Cardinal Numbers, with terms for numbers up to one million. For example, /mindʒo/, /mied/ 'one', /barie/ 'two', /apie/ 'three', /upunie/ 'four', /moe/ 'five', /turuie/ 'six', /aija/ 'seven', /irlia/ 'eight', /a:rea/ 'nine', /gelea/ 'ten' and so on. However, the language has a limited number of Ordinal Numbers, with only two members: /ajər/ to indicate 'first' or 'before' and /tʃanab/ to indicate 'after' or 'last'.

5.1. Cardinals

Cardinal numeral forms in Ho are given below:

1	mied	11	gel mied	21	hisi mied	31	dosi mied	41	bərhisi mied
2	barie	12	gel barie	22	hisi barie	32	dosi barie	42	bərhisi barie
3	apie	13	gel apie	23	hisi apie	33	dosi apie	43	bərhisi apie
4	upunie	14	gel upunie	24	hisi upunie	34	dosi upunie	44	bərhisi upunie
5	moeja	15	gel moeja	25	hisi moeja	35	dosi moeja	45	bərhisi moeja
6	turuia	16	gel turuia	26	hisi turuia	36	dosi turuia	46	bərhisi turuia
7	aija	17	gel aija	27	hisi aija	37	dosi aija	47	bərhisi aija
8	irlia	18	gel irlia	28	hisi irlia	38	dosi irlia	48	bərhisi irlia
9	area	19	gel area	29	hisi area	39	dosi area	49	bərhisi area
10	gelea	20	hisi	30	dosi	40	bərhisi	50	bərhisigel
				10	gelea				
				20	hisi				

30	dosi
40	bərhis
50	bərhisigəl
60	apehisi
70	apehisigəl
80	upunhisi
90	upunhisigəl
100	moehisi
1000	tʃendol
10,000	gəl tʃendol
100,000	dəka
1,000,000	gəl dəka
10,000,000	dum
100,000,000	gəl dum

Table 1: Cardinals in Ho

5.2. Semantic Classifications

Dimension	Age	Value	Colour	Physical Property	Human Propensity	Speed
osar 'wide'	huɾiŋ / bale 'young'	tʃera 'beautiful' 'lovely'	hende 'black'	hambal 'heavy'	tedʒ 'sharp' intellect'	sue 'slow'
marəŋ 'big'	undʒi 'young'	loskan, edka 'harmful' 'evil'	nuba: 'dark'	lebeʔ 'soft', 'gentle'	giu, ashamed	andʒa 'fast'
batari, resed 'narrow' 'thin'	papari, ha:m 'old'	niral, partʃi 'sincere, pure, honest'	pundʒi 'white'	nogoɖ 'sweet'	muruku, dondo 'foolish'	
ikir 'deep'		bugin 'good'	dʒeŋga, araʔ 'red'	leser 'sharp'	erel 'jealous'	
huɾiŋ, tumbrub 'short'		edka 'bad'	esel 'fair complexion'	papari 'old' 'worn-out' 'moth-eaten'	suku, rāsa 'happy'	
huɾiŋ, 'small, tiny'			pata roŋg, gaded, 'green'	sapa 'clear' 'clean'	mamarəŋ 'proud'	
ibil'dense' 'thick'			sasaŋ 'yellow'	keɾe 'hard' 'strong'		

hiɽɛŋ hoɽoŋ, dʒindəl, busar, 'loose, baggy'				keɽe, keɽe 'solid'		
dʒiliŋ 'long'				nama 'new'		
				ragam, raga tʃoga 'coarse, rough'		
				lum 'wet'		
				lolo 'hot'		
				moreo? 'sour'		
				laga 'tired'		

Difficulty	Similarity	Quantification	Qualification	Position	Cardinal numbers	Ordinal numbers
lar 'easy'	kisum kisum, kili mili, tanga tanga, 'different, various'	lali 'sufficient'	saben 'all'	latar 'below'	mindɔ, mijed 'one'	tʃanab 'after/last'
keɽe 'hard'	leka 'like' 'similar'	pure 'whole; entire; full; all, complete, total'	esu pure, a large quantity	biter 'inside'	barie 'two'	ajər 'first/before'
		sari 'true'	sama 'only'	tala 'middle'	apije 'three'	
			dʒoka 'some, few'	tʃanab 'backward'	upunie 'four'	
			iminanɛ, lali 'enough'	hudʒu ' following'	moe 'five'	
				tʃanab ' looking back'	turuie 'six'	
				tʃetan 'high'	aije 'seven'	

				dʒapa 'near'	irlija 'eight'	
				saniŋ 'far, distant'	areja 'nine'	
				leŋga kuŋi 'left'	gelea 'ten'	
				mandi kuŋi 'right'		
				siŋgi ol 'east'		
				siŋgi hasur 'west'		
				bo: kanɖua 'south'		

Table 2: *Thirteen semantic types of adjectives in Ho*

Table 2 Demonstrates all 13 semantic types of adjectives found in different languages. As per the study, Ho has all of these 13 semantic types typically associated with adjectives. The semantic types: POSITION (13 members), PHYSICAL PROPERTY (12 members), CARDINAL NUMBERS and DIMENSION (9 members) have the most members, while AGE, SPEED, DIFFICULTY and QUALIFICATION have fewer members of adjectives in Ho.

6. Other Word Classes Functioning as Adjectives

6.1. Demonstrative Adjective

“We can use demonstratives, this/that (Singular) and these/those (Plural), as adjectives before nouns to refer to someone or something known to both speaker and the listener” (Foley & Hall, 2003: 274). This also holds for demonstrative pronouns in Ho because they sometimes act as adjectives. In Ho, /en/ and /nen/ can function as the ones that point out which person or thing is being referred to. Their function is to modify a noun by specifying its number (singular or plural) and its relative distance from the speaker (near or far). In English, a demonstrative adjective invariably precedes the noun it modifies. For example:

10. en ka:r papari-e
that car old-FIN
‘That car is old.’

11. nen ka:r papari-e
this car old-FIN
‘This car is old.’

As illustrated by examples 10 and 11, the demonstrative pronouns /en/ and /nen/ in Ho, which translate to ‘that’ and ‘this,’ respectively, are capable of performing an adjectival role. While English employs four demonstrative pronouns, the singular ‘this’ and ‘that,’ and the plural ‘these’ and ‘those,’ the Ho language presents a different pattern because this adjectival role is limited only to these singular forms, unlike in English, where all four can serve as determiners. Even though Ho has plural terms like /enako/ ‘those’ and /nenako/ ‘these,’ they cannot be used

as demonstrative adjectives because in a sentence, when we have a demonstrative marker, a noun and an adjective (to modify the noun), then the plural marker /ko/ is always attached only to the noun.

6.2. Interrogative Adjectives

According to Khamying (2007), Interrogative adjectives are used to modify nouns in a questioning form. In Ho, Interrogative pronouns work as adjectives where these pronouns are used to ask questions like what, whose and which, etc. and directly modify a noun. For example:

12. okon kiteb-em paɾao tan-a
 which book-2SG read COP-FIN
 ‘Which book are you reading?’

13. okoe-a ka:r hudzu tan-a
 who-POSS car come COP-FIN
 ‘Whose car is coming?’

In both cases 12 and 13, the interrogative word cannot stand alone. It must be attached to a noun to make sense, which is the key characteristic of an adjective. Here /okon/ and /okoe-a/ act as an interrogative adjective because it is a question word that is directly modifying the nouns “book” in example no. 12 and “car” in example no. 13.

6.3. Possessive Adjectives

Other than demonstrative and interrogative, there are Possessive Pronouns that act as adjectives in Ho. It emphasises showing relations and modifying nouns without replacing them, unlike other possessive pronouns (mine, yours, his, hers, its, ours, theirs), which stand alone and replace a noun. For example:

14. aiŋ-a ka:r dʒeŋga tan-a
 1SG-POSS car red COP-FIN
 ‘My car is red.’

The possessive pronouns that precede a noun act as an Adjective in Ho are - /aiŋa/ ‘my’, /ama/ ‘your’ and /akoa/ ‘their’.

6.4. Nouns and Verbs

According to Burrow (1915), Most Ho adjectives may without any change of form be used as nouns or verbs, or to put the matter in its correct sequence, the original root to denote that its meaning has been altered. Thus /hende/, - to blacken, blackness and black; /tʃakad/ - to deceive, deceit and deceitful (p.19). For example:

15. ae-a bobale hende ge-a
 3SG-POSS hair black COP-FIN
 ‘She has black hair.’

16. ae bobale hende tan-a
 3SG hair black COP-FIN
 ‘She is blackening her hair.’

7. Conclusion

This paper provides an argument for the existence of a distinct class of adjectives in the Ho language, challenging the earlier claims that Munda languages lack this word class. The findings directly support more recent linguistic analyses by scholars like Deeney (2002) and Pucilowski (2013).

By applying R.M.W. Dixon's (2004) framework, the study confirms that Ho adjectives fulfill a core function of either predicating or modifying a noun. They operate effectively as both intransitive predicates and copula complements, and they are essential for comparative constructions. The only role that proved less common was the modification of verbs or other adjectives. Another significant finding of the study is the presence of all 13 of Dixon's semantic types within the Ho adjectival system, aligning it with other languages that have a large inventory of adjectives. According to Dixon (2004), the four core types (Dimension, Age, Value, and Colour) are found in both large and small classes. A second group (Physical Property, Human Propensity, and Speed) appears in medium and large classes. The remaining five types (Difficulty, Similarity, Qualification, Position, and Cardinal Numbers) are only found in large classes in some languages. The findings of this study indicate that Ho possesses a large adjective system, with a significant number of words belonging to the Dimension (13 members), Physical Property (12 members), Position (13 members), and Cardinal Numbers types. However, it contains only a limited number of adjectives from the Age (3 members), Value (5 members), Speed (2 members), Difficulty (2 members) and Ordinal Numbers (2 members). The analysis also looks into other word classes that function as an adjective without any modification to their form, such as demonstrative pronouns, interrogative pronouns, possessive pronouns, nouns, and verbs. In conclusion, this research not only refutes the notion that the Ho language lacks a distinct adjectival class but also contributes valuable insights into the broader linguistic structure of the Munda language family. Further research could explore the historical development of these adjectival forms and their wider typological implications.

Abbreviations

1	First Person	LOC	Locative
2	Second Person	PL	Plural
3	Third Person	PST	Past Tense
COP	Copula	POSS	Inherent possession
COMP	Comparative Marker	SG	Singular
FIN	Finite		

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A Structural Analysis of Causative Clause Constructions in Assamese

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ABSTRACT

This study analyses the structural analysis of causative clause constructions in Assamese within the Minimalist program. Assamese shows a productive causative system in which valency is increased through the suffixation of the verb. The finding shows that Assamese follows the 'root-and-affix' pattern in the formation of causative verbs. Direct causative (CAUS) is marked with the suffix -a and indirect causative (CAUS2) is marked with the suffix -uwa. The complexity of causative sentences are driven by a series of precise syntactic operations merge, movement and agree. The verb root undergoes a systematic verb raising operation from V to v to receive the causative feature. In active-causative construction, the verb further moves to the T head to check the tense feature. If the number of arguments increases v' also increases. Each level of causation adds a new intermediate v' projection to the tree structure. While in case of causative-passive construction, the main verb does not move from v head because of the existence of a passive auxiliary that takes the position of T and marked with tense.

1. Introduction

Causativization (CAUS) is a valency-increasing operation in the study of grammar. "Any causative situation involves two component situations: the cause and its effect (result)" (Comrie 1989:165). Thus, these two micro component situations combine to produce a single macro situation (causative). "Causativization is a process which takes as input a verbal predicate with a particular argument structure and returns a new version of the predicate with an augmented argument structure; specifically, causativization adds a 'causer' argument, which becomes the semantically and grammatically most prominent argument of the predicate" (Lowe et.al, 2024). According to Baker (1988), "The causative verb is a morpheme that needs to be attached to a host". In the upper clause, a base verb must fuse with the causal verb in a cyclical manner. According to the projection principle, this movement should not destroy structures that are thematically significant. Hence, the moved verb root must leave a trace to allow theta role assignment to the stranded subject and to head the embedded clausal complement, which the causative morpheme lexically selects. This causative construction has an impact on the argument structure of the verb turning an intransitive verb into a transitive verb.

2. Theoretical Background

This study is based on Chomsky's idea of Minimalism (1995). The theory seeks to replace the complex machinery and government and binding (GB) theory procedures with the most basic

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and universal sentence structure principle. The study is following three structural building operations. Merge is the simple syntactic operation that builds constituents by combining lexical items in binary forms.

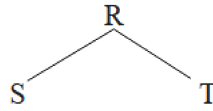


Figure 1: Merge

In fig (1) this new element R is not a single word; it is a constituent that merges the two elements. R immediately dominates S and T (mother-daughter relationship). It is a binary branching operation. Merge can generate larger elements by combining the elements at its root node.

Movement operation denotes the movement of an element from one place to another place. According to Chomsky (1995), this operation is motivated by morphological considerations where some features must be checked. Elements of a structure always stay in their base generated position D structure. To spell out the sentence correctly, those elements must move from their base position to surface structure.

Agree is a feature checking operation that checks features under c- command. “An unpredictable feature F on a syntactic object Y is checked when Y is in a c-command relation with another syntactic object Z which bears a matching feature F” (Adger, 2002: 134).

The arguments are always selected by the verb. The number of core arguments that a verb can accept is indicated by its type. Where adjuncts or peripheral arguments are just added information; it doesn’t depend on the verb and hence, adjuncts do not come under the core argument of a verb, nor do they get any theta roles.

2.1 Thematic Hierarchy

Thematic hierarchy a ranking set of semantic roles; its aim is to show the precedence relation among them. Arguments presented in a clause structure have both semantic and syntactic functions. Syntactically the subject precedes the other arguments in a clause, semantically which functions as an agent or initiator of an act. Direct object comes after the subject which semantically functions as a patient. Indirect object follows direct object which plays the role of recipient or beneficiary. The oblique argument or the peripheral argument comes after the indirect object.

In a causative construction the original subject of an intransitive verb or transitive clause becomes the object and there is a new subject coming in the clause.

2.2 Structural Analysis

Comrie (1989) has categorized causatives into three types- Lexical causative, Morphological Causative and Analytic Causative. The idea of causation and the predicate of effect are expressed separately in analytical causative, as in the English John caused me to leave. Morphological marking indicates the state of impacted arguments, and morphological causatives are connected to the non-causative predicate by morphology. “Sanskrit, Hindi/Urdu, Persian, Arabic, Hebrew, Japanese, Khmer and Finnish languages have morphological causatives” (Begum & Sharma 2010: 120). In lexical causatives two events are handled lexically. For example, the English verbs like die and kill.

Dixon (2012:239) has also provided two basic possibilities of causatives:

- (i) S becomes O — causative, new argument in A function
- (ii) S becomes A — applicative, new argument in O function

Two types of universal clauses are there. Intransitive clauses have an intransitive predicate and one core argument in the S (intransitive subject) function, whereas transitive clauses have a transitive predicate and two core arguments in the A (transitive subject) and O (transitive object) functions. Dixon (1994: 06) says that “All languages work in terms of three primitive relations. S-intransitive subject, A-transitive subject and O-transitive object.” An extended transitive or ditransitive construction A, O, and E is found in most languages. The clause receives a new external argument (the causer) because of this valency-increasing operation.

An argument of a verb refers to the primary or core participants a verb requires to fulfil the meaning of a linguistic expression. It is a noun phrase or clause that a verb needs to make a grammatically correct sentence.

3. Data Analysis

3.1 Causative Clause

Intransitive verbs carry only one argument, i.e the subject position. Verbs like *zɔl* ‘burn’, *xu* ‘sleep’, *hah* ‘laugh’, *kand* ‘cry’, *nas* ‘dance’, *ah* ‘come’ etc are as intransitive verbs having only one argument.

- (1) *zui* *zɔl-il-ɛ*
 fire.nom burn-3pst
 ‘Fire burned.’

In (1) the verb *zɔl* ‘burn’ is an intransitive verb with one NP in the subject position. This is the only argument the verb can take; hence the verb is monovalent. The core argument *zui* ‘fire’ is the subject (S) of the intransitive clause.

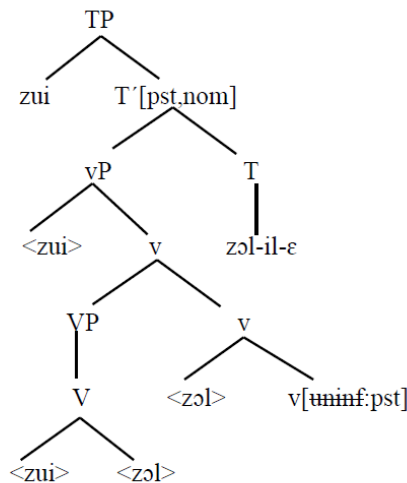


Figure 2: Syntactic structure of ‘*zui zɔl-il-ɛ*’

The verb *zɔla* ‘to burn’ is an unaccusative verb, therefore it does not have a true agent. The subject does not initiate the action, rather undergoes the action. It can either be a theme or an experiencer. Therefore, the subject *zui* ‘fire’ is originally generated as a specifier of V and

moved to the specifier of T to check the nominative case and satisfy EPP (extended projection principle). Verb *zɔl* ‘burn’ has also undergone a movement operation from V to v and again from v to T to check the uninflectional tense feature assigned by T.

A monovalent verb can have two core arguments only when the verb is causativized.

- (2) *deuta-i* *zui* *zɔl-a-le*
 Father-erg fire.nom burn-caus-3pst
 ‘Father burnt the fire.’

Since causativization increases the argument of the verb in this case, unlike the unaccusative sentence *zɔl* ‘burn’ now has two core arguments *deuta* ‘father’ and *zui* ‘fire’ as in (2). This requires a vP to which assigns the agent role to the subject and theme to the object. The suffix *-i* in the subject *deuta-i* ‘father’ marks the external argument (Agent) in the transitive construction which is the ergative case.

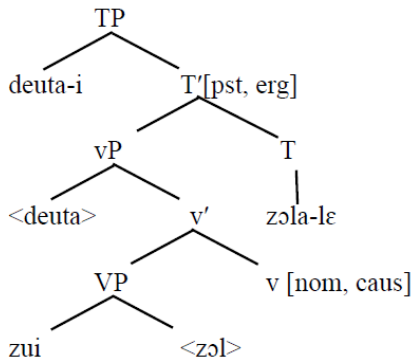


Figure 3: Syntactic Structure of ‘*deuta-i zui zɔl-a-le*’

In the above structure, the number of arguments of the monovalent verb *zɔl* ‘burn’ is increased by using the direct causative marker *-a* to the verb root. The subject *deuta* ‘father’ is the causer and *zui* ‘fire’ is the ‘causee’. A direct relation between the doer and the theme is established. The subject being marked with the ergative case marker received the thematic role of an agent, while *zui* ‘fire’ is in the object position and received the role of a theme as an argument of verb and assigned nominative case.

DP *zui* ‘fire’ is merged to the complement of V. Verb has moved from its base position to the position of v to check the causative feature. Again, it moved to the T position to check the uninflectional tense feature.

3.2 The Base Form

Causation in Assamese is expressed by modifying the verb itself and by adding suffixes. In some cases, the internal structure of the verb may change. As Comrie (1989:167-168) said, “This morphological process consists of affixation, in which the morphological type of the predicate or the causative verb is made up of a basic verb and a causative affix”. Blanco (2011:15) says that “In English, zero causatives are identifiable by the presence of an extra agentive argument but languages like Japanese and Finnish contain causative morphemes, overtly realized by causative suffixes.” Assamese follows the second pattern. Therefore, the basic pattern in ‘root-and-affix’ in the formation of causative verbs.

“Assamese has two causative morphemes *-a* CAUS1 and *-uwa* CAUS2” (Barbora 2016: 115). The causative marker *-a* comes with both direct causation and indirect causation and *-uwa*

comes with only indirect causation. The degree of control or involvement of the causer is referred to as both direct and indirect causation. The addition of causative morphemes often changes the initial or the middle sound properties of the main verb.

The basic pattern of formation is that transitive verbs formed by -a suffixation to the intransitive verb stem which indicate both direct and indirect causation. -uwa suffixation to the intransitive verb indicates indirect causation. All causative verbs are transitive in nature. The morphological causative markers -a and -uwa suffixes to a verb, indicates the rise of arguments in the structure as illustrated in the following examples.

- (3) *ma-ε kesũa-tu-k b^hat k^hua-lε*
 mother-erg baby-clf-acc rice.nom eat.caus-3pst
 ‘Mother fed the baby.’

The causer here is *ma* ‘mother’ marked with ergative case which is the grammatical subject of the sentence. *kesũa* ‘baby’ is the logical subject of the verb (whom mother fed) which is marked with accusative case. The verb *k^ha* ‘eat’ has the causative marker -a on it that changes the middle sound property of the main verb.

All the causative verbs exhibit similar kind of construction i.e. Verb root+ CAUS (followed by tense and person marker).

3.2.1 CAUS-1

The surface structure of CAUS1 construction is similar to the simple verb constructions [V.CAUS]. The same intransitive verb *zɔl* ‘burn’ in (1) can occur in a transitive clause with A and O in causative structure. Where subject (S) of the intransitive clause becomes object (O) and a new subject (A) comes in.

V: <i>zɔla</i> ‘to burn’
S
<i>zui</i> ‘fire’

Table 1: Arguments of verb *zɔla* ‘to burn’ [-causative]

V: <i>zɔla</i> ‘to burn’	
A	O
<i>deuta</i> ‘father’	<i>zui</i> ‘fire’

Table 2: Arguments of causativized verb *zɔla* ‘to burn’ [+causative]

In (2) the intransitive verb *zɔl* ‘burn’ changes into a transitive or bivalent verb with two core arguments. *deuta* ‘father’ is the new argument (A) in the structure and *zui* ‘fire’ which was S in the intransitive clause becomes object (O) in the transitive clause.

V ^{Int}	Gloss	V ^T	Gloss
<i>hãh</i>	to laugh	<i>hõh-a</i>	to cause laugh
<i>kand</i>	to cry	<i>kõnd-a</i>	to cause cry
<i>nas</i>	to dance	<i>nõs-a</i>	to cause dance
<i>douɪ</i>	to run	<i>douɪ-a</i>	to cause run
<i>xu</i>	to sleep	<i>xu-a</i>	to cause sleep

Table 3: Verbs from Intransitive to transitive by using CAUS1 [-a]

3.2.2 CAUS-2

The verb *zɔla* ‘burn’ can have three arguments when it is marked with indirect causation. Causative construction with a trivalent verb takes the morphological causative marker *-uwa* to the verb as a suffix.

V^{Int}	Gloss	V^T	Gloss
<i>hãh</i>	laugh	<i>hõh-uwa</i>	Cause to laugh
<i>kand</i>	cry	<i>kõnd-uwa</i>	Cause to cry
<i>nas</i>	dance	<i>nõs-uwa</i>	Cause to dance
<i>doɔɪ</i>	run	<i>doɔɪ-uwa</i>	Cause to run
<i>xu</i>	sleep	<i>xuwa</i>	cause to sleep

Table 4: *Intransitive to transitive by using CAUS2 [-uwa]*

The following example shows the verb *zɔl-a* ‘to burn’ has become trivalent verb.

- (4) *deuta-i (taɪ hɔtuwai) zui zɔl-uwa-lɛ*
 father-erg him.gen through fire.nom burn-caus2-3pst
 ‘Father made him lit the fire.’

In the above examples the verb *zɔla* ‘to burn’ has become a ditransitive verb with two NPs as its arguments. NPs *deuta* ‘father’ is A and *zui* ‘fire’ is O. Besides these two core arguments, there is an additional peripheral argument E i.e *taɪ* ‘him’ which is technically not a core component of the structure.

V: <i>zɔla</i> ‘to burn’		
A	O	E
<i>deuta</i> ‘father’	<i>zui</i> ‘fire’	<i>taɪ</i> ‘him’

Table 5: *Arguments of double causative verb *zɔla* ‘to burn’*

This third NP can be dropped without changing the overall meaning of the structure, when the listener and the speaker has a mutual understanding of the context or explicitness of the additional NP is not required. The increasing number of the arguments in the clause, denotes the phenomenon of valency rising, and it is known as valence rising operation.

The development of the causative verb undergoes a morphophonemic change. The word medial vowel *-a* changes to *-ɔ* and word final vowel *-a* changes to *-u* sound (Table 6).

V	Gloss	V^[CAUS1]	V^[CAUS2]	Gloss
<i>hãh</i>	laugh	<i>hõh-a</i>	<i>hõh-uwa</i>	Cause to laugh
<i>kand</i>	cry	<i>kõnd-a</i>	<i>kõnd-uwa</i>	Cause to cry
<i>k^ha</i>	eat	<i>k^hu-a</i>	<i>k^huwa</i>	Cause to eat
<i>ga</i>	sing	<i>gu-a</i>	<i>guwa</i>	Cause to sing

Table 6: *Morphophonemic changes of causative verbs*

3.3 Transitivity and Argument Structure

A transitive verb requires a direct object for the content fulfillment. The two main arguments of a transitive verb are A and O.

- (5) *rana-ɛ b^hat k^ha-l-ɛ*
 rana-erg rice.nom eat-3pst

‘Rana ate rice.’

The verb *k^ha* ‘eat’ is a bivalent verb, as it has two core arguments Rana is the subject and *b^hat* ‘rice’ is the direct object. The same transitive verb can be causativized which will eventually end up with increasing the arguments of the verb from (6) to (7).

- (6) *deuta-i rana-k b^hat k^hua-lε*
 father-erg rana-acc rice eat.caus-3pst
 ‘Father made Rana eat rice.’

- (7) *deuta-i [mυ.ɿ hɔtuwai] rana-ɔk b^hat k^huwa-lε*
 father-erg me.gen through rana-acc rice.nom eat.caus-3pst
 ‘Father made me feed rice to Rana.’

Rana (A) and *b^hat* ‘rice’ (O) are the two core arguments in (7). In this case, *deuta* ‘father’ is the causer who initiated the action and made the causee *rana* to perform the resulting action. Morphological causative marker -a suffixes to the verb root *k^ha* ‘eat’ followed by the tense and agreement markers.

The number of arguments rises in (6) as there is a new argument *deuta* ‘father’ (A) comes in, and Rana which is S in (5) becomes O. In (7) there is a peripheral/oblique argument *mυ.ɿ hɔtuwai* ‘through me’ which helps in increasing the valency of arguments, but this argument is not considered as a core argument; this is optional as this can be dropped.

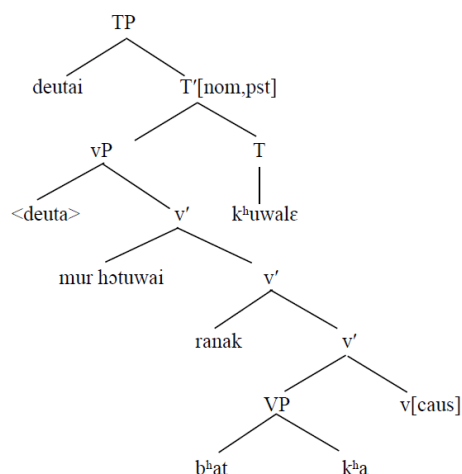


Figure 4: Syntactic Structure of ‘*deuta-i mυ.ɿ hɔtuwai rana-ɔk b^hat k^huwa-lε*’

In above structure, each level of causation adds a new intermediate *v'* projection to the tree. This shows how three different arguments are established in the tree structure. Subject *deuta* ‘father’ originates at the specifier of *vP* and proceeds to the *TP* specifier in order to check the ergative case provided by *T* head. First *v'* introduces the preposition phrase (PP) *mυ.ɿ hɔtuwai* ‘by me’ which is an adjunct (because it can be dropped). Second *v'* introduces the direct object which is being marked with accusative case. Indirect object *b^hat* ‘rice’ sits in the specifier of *VP*. Verb *k^ha* ‘eat’ has moved from *V* to *v*, to check the causative feature. Again, it moved to the position of *T* to check the uninflectional tense feature.

Verbs like *dε* ‘give’, *pɔt^ha* ‘send’, *xud^h* ‘ask’ etc are ditransitive verbs. These verbs can take peripheral arguments and A, E and O all these three arguments are obligatory.

- (8) *ma-ε muloi kəɓm-tu pət^ha-l-ε*
 mother -egr me.dat pen-clf send-pst-3
 ‘Mother sent me the pen.’

In the above example, the ditransitive verb *pət^ha* ‘send’ has three core arguments *ma* ‘mother’ (A), *muloi* ‘to me’ (E), and *kəɓm-tu* ‘the pen’ (O).

- (9) *ma-ε [taɪ hətuwai] mu-loi kəɓm-tu pət^h-a-l-ε*
 mother-erg him.gen through me.dat pen.nom-clf send-caus-3pst
 ‘Mother sent me the pen by him’

The peripheral argument *taɪ hətuwai* ‘by him’ is oblique but not obligatory as the verb already has three core arguments.

Ditransitive verbs like- *pət^ha* ‘send’ can be causativized with the help of causative morpheme -a but this verb does not take CAUS2 morpheme -uwa. Causative suffix -a is only used in case of a ditransitive verb.

Ditransitive verbs like *dε* ‘give’ can also be causativized with peripheral argument.

- (10) a. *xi muk kəɓm-tu di-l-ε*
 he me.acc pen.nom-clf give-3pst
 ‘He gave me the pen.’
 b. *xi rima-ɔɪ hətuwai muk kəɓm-tu di-a-l-ε*
 he.nom rima-gen through me.acc pen.nom-clf give-caus-3pst
 ‘He gave me the pen through Rima.’

In (10b) the ditransitive verb *dε* ‘give’ has three arguments. Morphological causative marker -a is suffixed to the verb and the peripheral argument *rima-ɔɪ hətuwai* ‘through Rima’ is obligatory to the clause. But if this ditransitive verb takes CAUS2 -uwa morpheme, it will not be considered as a well-formed sentence.

- (11) **xi rima-ɔɪ hətuwai muk kəɓmtu di-uwa-l-ε*
 he.nom rima-gen through me.acc pen-clf give-caus-pst-3
 ‘He gave me the pen through Rima.’

There are many such verbs where the suffixation of the CAUS2 morpheme -uwa is not possible (Table3).

Ditransitive	Gloss	CAUS1 -a	CAUS2 -uwa
<i>dε</i>	to give	<i>di-a</i>	* <i>di-uwa</i>
<i>pət^ha</i>	to send	<i>pət^hi-a</i>	* <i>pət^ha-uwa</i>
<i>kə</i>	to say	<i>ko-a</i>	* <i>ko-uwa</i>

Table 7: Causativization of Ditransitive verbs

These verbs can be causativized in passive constructions. The ditransitive verb *pət^ha* ‘to send’ and *dek^hua* ‘to show’ can be causativized with CAUS2 causative morpheme -uwa in a causative

passive construction. When we move into the causative passive, it essentially looks at a structure where an action being ‘caused to happen’ while the original agent (sender) is side-lined.

- (12) a. *mɔi tar-loi kɔlɔm-tu pɔt^ha-lu*
 I.nom he-dat pen.nom-clf send-1pst
 ‘I sent him the pen.’
 b. *tar-loi kɔlɔm-tu pɔt^hiuwa hɔ-l*
 him-dat pen.nom-clf send-caus be-pst
 ‘The pen was sent to him’ (by someone)

Morphological marking on verbs makes it a causative verb *pɔt^hiuwa* ‘send’ while the use of the be verb *hɔl* ‘be’ changes the construction into a passive one. The active agent sentence *mɔi* ‘I’ is dropped.

- (13) a. *mɔi tak sɔbi-bur dɛk^h-a-lu*
 I.nom he.acc painting.nom-clf.pl show-caus-1pst
 ‘I showed him the paintings.’
 b. *sɔbi-bur tak dɛk^h-uwa hɔl*
 painting.nom-clf.pl he.acc show-caus be.pst
 ‘The paintings were shown to him.’ (by someone)

In (13a) *mɔi* ‘I’ is the agent. In the causative passive (13b) the focus shifts entirely to the object *sɔbi-bur* ‘paintings and the experiencer *xi* ‘he’. The agent of the active construction is dropped in the causative-passive construction.

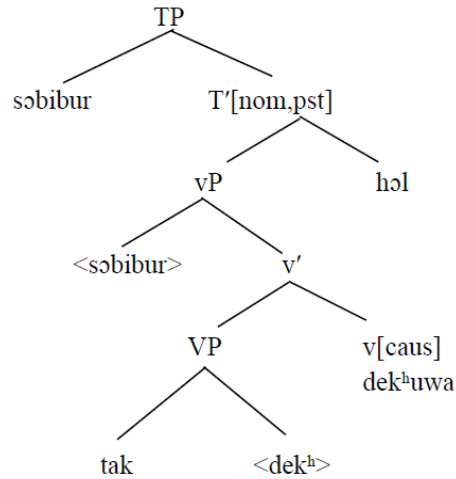


Figure 5: Syntactic Structure of ‘*sɔbi-bur tak dɛk^h-uwa hɔl*’

Since the sentence is a passive construction, the grammatical subject *sɔbibur* ‘paintings’ originated in the specifier of vP and moved to the specifier of TP to check the nominative case. Direct object *tak* ‘him’ comes in the specifier of VP-shell. Main verb moves from V to v where it

gets the causative marker and not marked with any tense since the passive auxiliary verb *hol* 'happen' is marked with the past tense in T position.

4. Conclusion

The study has found that since Assamese is a 'root-and-affix' language, therefore causative morphemes are suffixes being attached to the verb roots which is followed by other grammatical markers like tense, number, and person. Assamese shows direct and indirect causation where CAUS 1 marker is -a and CAUS 2 marker is -uwa. CAUS 1 shows direct causation between causer and causee while CAUS 2 establishes an indirect relation. The complexity of these sentences is not merely lexical but driven by a series of precise syntactic operations to merge, movement and agree. Each degree of causation adds a new vP shell. The stacking of v heads in double causative enables the syntax to support several agents. For the phonological manifestation of causative verbs, the verb rises from its initial position of V to the position of v head. This causes an intransitive verb to become transitive by initiating the valency increase action. The agent or doer of the action is an external argument that is made possible by this fact. By analysing Assamese causative construction through a minimalist lens, it shows that the language treats agency and causation as a spatial arrangement within the tree structure.

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A Descriptive Analysis of Lexical-Relation Errors in Hindi-Speaking People with Alzheimer's Disease

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ABSTRACT

Alzheimer Disease is a neurodegenerative brain disorder, which is characterized by destruction of cortical amyloid plaques and neurofibrillary tangles. With the progression of the brain disorder, it affects the language areas of the cerebral cortex. This results in gradual language breakdown in People with Alzheimer Disease (PAD). This research paper examines the descriptive analysis of lexical-relation errors made by two Hindi-speaking PAD, one moderate and one severe, when they were presented colored pictures of lexical items from 11 lexical categories and were asked to name them. They were recruited from the Out Patient Department of Neurobehavioral Clinic of Govind Ballabh Hospital, New Delhi. The responses made by PAD were matched with three socio-economic status matched People without Alzheimer Disease (PWAD) who were recruited from the vicinity of Delhi region on a volunteer basis. The findings of the research study indicate that four lexical-relation errors are most evident, i.e., Hyponymy, Male-Female Pair, Meronymy and Taxonomic Sisters relations.

1. Introduction

Alzheimer Disease (AD), also known as Senile Dementia of the Alzheimer Type (SDAT), is a neurodegenerative brain disorder. It is characterized by destruction of cortical amyloid plaques and neurofibrillary tangles in the brain (World Health Organization 2007, p. 42). Such changes are progressive in nature which affect the language areas of the cerebral cortex. This results in gradual language breakdown in People with Alzheimer Disease (PAD). Prior to the diagnosis of the brain disorder, PAD continued to use their speech mechanism effortlessly. Such individuals are able to produce sounds and their combinations; generate words and sentences; and use those sentences in appropriate discourse. But the problem arises when the brain cells, located at the language areas of the cerebral cortex, begin to degenerate. This process of degeneration affects the language producing capacity of the individual. The severity of language breakdown in PAD becomes observable from the second stage onwards, in terms of vocabulary shortage and decreased word fluency. This is followed by reduced inability to recall vocabulary items during the third stage. And, this breakdown continues and becomes profound until the last stage of the disease, when language is reduced to simple phrases or even single words in PAD, leading to complete loss of speech. Therefore, understanding language breakdown from communicational perspective, the present research study stemmed from the realization that, due to degeneration of cortical cells in the language areas of the brain, PAD will have disturbance in the lexical-semantic representation of naming lexical items. This disturbance is expressed in the

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form of lexical-relation errors when pictures of lexical items are shown to PAD with varying degree of severity.

1.1 Literature Review

A native speaker of a language stores an incredible number of words in the mind², throughout its lifespan (Farahian, 2011). These words and their related associations are stored systematically in the human mind (Gairns, 1986). However, the notion of word representation in the mind has been a subject for investigation from several perspectives such as the views proposed by neurologist Norman Geschwind. Geschwind, in 1965, proposed anatomical and functional arrangement of fibers in the brain as the underlying cause of language development in humans (Geschwind, 1965). He argued that presence of fibers from visual association cortex, auditory association cortex and somesthetic association cortex allows the establishment of direct association between visual, auditory and somesthetic stimuli. This anatomical ability in humans is critical during the development of naming of lexical items³. Naming involves building a network of intrinsic properties of the lexical item such as sounds and its combination; physical properties of the object; its referent (i.e., what it refers to in the real world), etc. When information from visual, auditory and somesthetic modalities are retrieved through these fibers in the inferior parietal lobule, an individual is able to name the lexical item (Caplan 1987, p. 71-72). This observation supports the plausible view of language breakdown in Alzheimer Disease during the course of the disease, which needs to be investigated in case of naming lexical items.

Propounding the same anatomical idea of word representation in the human mind, terminologies such as lexeme, lexical field and lexical-relationship are extensively used in lexical-semantics also. In semantics, a lexeme is treated differently from a word. Words can be expressed at the level of writing using orthographic letters; at the level of phonology showing sounds and its combinations; and at the level of syntax expressing different grammatical variants (Saeed 1997, p. 56). On the other hand, a lexeme or lexical word is just the root word which is stored in our mind with thousands of interconnections involving them. These interconnections or associations take the shape of what is known as lexical-relationship between the lexemes (for full discussion, refer Saeed 1997). The network or the place where these lexical words are stored is called lexical field. Disturbances in lexical-semantic representations, due to either brain lesion or brain cell degeneration, is quite evident in terms of naming lexical items in PAD (Hodges et al., 1991). Assignment of names to lexical items is probably the first linguistic feature learnt in any language. This has been agreed unanimously by scholars studying first language acquisition in infants, where infants begin to put concrete nouns (which is the same as naming lexical items) by the first year of their life to express and convey meaning (Kess 1992, p. 319). Empirical evidence has also found that processing of nouns is less demanding than verb processing in humans (Matzig et al., 2009). Thus, examining naming deficits in PAD would be a first step in understanding language breakdown in such individuals. Absence of any investigation with Hindi speaking PAD warrants the necessity to examine this deficit at the linguistic level. Errors reported by them are lexically-related to each other within the same or related lexical category. In this research study, four lexical-relations are examined, i.e., Hyponymy, Male-Female Pair, Meronymy and Taxonomic Sisters. According to Saeed (Saeed 1997, p. 68-70), Hyponymy is a lexical-relation where it represents the common meaning of the lexical item. Such a relation is

² In this research paper, the word *Brain* and *Mind* have been used interchangeably. *Brain* is a medical term, which is tangible in nature. On the other hand, *Mind* is a psychological term, which is intangible in nature.

³ Lexical item is the same as the word 'object'.

semantically hierarchical in nature and represents a vertical relationship in the network. Male-Female Pair is a sub-taxonomy of Hyponymy which represents male-female relation. Meronymy is defined as part-whole relationship between lexical items. Like Hyponymy, this lexical-relation also represents vertical relationships in the human mind. Taxonomic Sisters is a sub-taxonomy of antonyms (or, opposites). Two lexical items share a taxonomic sister relationship when they cannot be mutually replaced by one another. Such relationships are horizontal in nature. Nevertheless, information from various modalities activates the neuron cells to transmit information about the lexical item, resulting in generation of lexical item. However, damage to these cells at various levels is expected to affect these processes, leading to incorrect generation of lexical items. This is represented in the form of errors at the linguistic level.

2. Research Objectives

Over the course of the disease, Alzheimer Disease has a debilitating effect on the language producing capacity of such individuals. To examine this effect, it is necessary to investigate some basic domains in language. Naming a lexical item is found to be one of those, since it is the first piece of information or knowledge gained while learning any language. In addition, it is also less demanding than other grammatical processes at the cognitive level. To our understanding, no empirical investigation has been reported on naming lexical items with Hindi-speaking PAD, to date. Therefore, following research question is investigated in the current research study:

Research Question: Are there any lexical-relationship between the error responses made by Hindi-speaking PAD?

Hypothesis: It is proposed that in this research study, we would find lexical-relationship between the error responses made by Hindi-speaking PAD. These error responses would be exhibited in the form of four lexical-errors, i.e., Hyponymy, Male-Female Pair, Meronymy and Taxonomic Sisters relations.

3. Methodology

3.1 Participants

The present research study had recruited two Hindi-speaking PAD, one male and one female and three People without Alzheimer Disease (PWAD), one female and two males. At the time of administration of the study, the mean age of PAD was 65 years of age ($SD = 0$), while the mean age of PWAD was 64.66 years of age ($SD = 9.50$). PAD were recruited from the Out Patient Department of Neurobehavioral Clinic of the Govind Ballabh Pant Hospital, New Delhi.

On the other hand, PWAD were recruited from the vicinity of Delhi region on a volunteer basis. All the participants in the study were socio-economic status matched. In order to participate in the research study, PWAD had to score 28 or above points on the Mini Mental Status Examination (Hindi Version). Anyone scoring less than the assigned ceiling point would have, otherwise, been excluded from the study. The MPhil research committee at the Centre for Advance Studies in Linguistics, University of Delhi, New Delhi, India had approved the research study.

Participants	Age (in years)	Sex	Education (No. of Years in School)	Socio-Economic Status	Manual Dominance
PAD-1	65	M	8	Middle	Right

PAD-2	65	F	0	Middle	Right
PWAD-1	65	F	10	Middle	Right
PWAD-2	74	M	12	Middle	Right
PWAD-3	55	M	12	Middle	Right

Table 1: Background Information Sheet of the Participants

3.2 Neuropsychological Tools

Neuropsychological examinations are conducted to determine the type and the level of cognitive impairment of an individual. During this research study, two neuropsychological examinations were conducted with PAD in order to determine the degree and severity of their disease. These were as follows:

3.2.1 Mini-Mental Status Examination (MMSE)

This test, also known as the Folstein Test (English version), had been adapted in Hindi Language and conducted accordingly. It assesses memory, concentration and provides a good understanding about the level of cognitive functioning of an individual. It is a reliable and valid indicator for any cognitive impairment. The test generally takes only 5-10 minutes to administer. This research study implemented the Hindi Language version of the test. The total score of the Hindi version was 36, instead of 30 given in the English version. Individuals scoring above 29 indicated normal cognitive functioning. However, scores in the range of 24-28 indicated early stages of Alzheimer Disease with mild cognitive impairment while scores in the range of 12-23 indicated middle stages of Alzheimer Disease. Scores less than 12 indicated last stages of Alzheimer Disease. In our research study, PAD-1 had scored 17 while PAD-2 had scored only 12 out of 36 on the MMSE scale.

3.2.2 Alzheimer Disease Assessment Scale-Cognitive (ADAS-COG)

This was another test, which was coupled with the Hindi version of MMSE test. It had 11 different sections which determined the severity of the disease. It focuses on attention, orientation (knowing who you are, where you are and what time it is), language executive functioning (the ability to plan, make decisions, carrying out daily tasks) and memory skills. In this research study, the Hindi version of the test was administered [American Psychiatry Association 1984]. PAD-1 had moderate Alzheimer Disease and PAD-2 had severe Alzheimer Disease was being reported.

3.3 Hindi Picture-Naming Test

In the absence of any standardized Picture-Naming test for Hindi speakers, the researcher had designed a non-standardized Hindi Picture-Naming test. A total of 110 lexical items of 11 lexical categories (Fruits; Dry Fruits and Nuts; Vegetables; Animals; Birds; Means of Transport; Means of Occupation; Hindu Gods and Goddesses; Clothes, Furniture; Means of Communication; and Body Parts) were used for the test. The pictures were selected from Cut and Paste Chart Book⁴. The target pictures were randomized and counterbalanced in such a way that no two lexical items from the same lexical category appeared consecutively in the test. Each lexical item from 11 lexical categories appeared in the test in the following pattern: Fruits, Dry Fruits & Nuts, Vegetables, Animals, Birds, Means of Transport, Means of Occupation, Clothes, Furniture,

⁴ Cut and Paste Chart Book published by Indian Book Depot (Map House).

Means of Communication, Body Parts. Target pictures in colours were shown to People with Alzheimer Disease and their responses were noted down (see Appendix-1 for more information on sample pictures used in the research study). During the administration of the test, semantic and/or phonemic cues were also provided (see Appendix-2 for more information on sample semantic and/or phonemic cues given to People with Alzheimer Disease).

3.4 Procedure

The research study was conducted at two places. Before the administration of the test, an Information Sheet describing the objective of the research study was explained to them. They were also examined using MMSE (Hindi version) to determine their cognitive functioning. The participants scored 28 or above on MMSE. This session was followed by administration of the Hindi Picture Naming Test with PWAD individually at a place convenient for them. Responses made by PWAD were noted down against the target pictures.

At the beginning of the session, the researcher read out an Information sheet about the purpose of the research study to both PAD and their respective families. Along with the researcher and the neuropsychologist, PAD was asked to sit in a separate and quiet room at the Govind Ballabh Pant Hospital, New Delhi. Before administering the Hindi Picture Naming Test, PAD were examined individually with two neuropsychological tests, MMSE and ADAS-COG, in the presence of a neuropsychologist to determine the degree and severity of their disease. After these neuropsychological examinations, coloured pictures of lexical items were shown to PAD and were requested to name them. The responses, either in English or in Hindi, given by PAD were noted against the target name of the lexical item. If required, they were allowed to make self-corrections. Additional information related to the pictures, provided by PAD, was also noted down for the purpose of further investigation. A total of 30 sessions, of one and half hours each, were conducted with PAD. No time limit was set for them and appropriate breaks were given within each session to PAD. Moreover, if the PAD showed any sign of uneasiness during the session, then that particular session was cancelled and was carried over to the next session.

4. Data Analysis & Result

Data obtained from five participants was examined carefully to look for any discrepancies. Of the five participants, PAD-1 provided sixteen wrong responses, PAD-2 provided six wrong responses, PWAD-1 provided one wrong response, PWAD-2 provided one wrong response and PWAD-3 provided two wrong responses with no lexical-relation between the error responses and the target picture presentation. During the administration of the test, some of the responses obtained from the participants were rejected for analysis. This was either primarily because of three reasons, (a) provided more than one response against the target picture and chose the best response amongst it, (b) gave correct response, but was not sure about their own response, (c) provided response related to miscellaneous items shown in the target picture.

Responses obtained from participants were divided into three categories: Exact Response (ER) category, Dubious Acceptable Response (DAR) category, Dubious Partial Acceptable Response (DPAR), Wrong Response (WR) and No Response (NR) category. The ER category referred to a response wherein the participant gave the target name of the lexical item. In this research study, contemporary names of the lexical items were also considered as exact responses. On the other hand, the DR category referred to a response wherein the participant did not give the target name of the lexical item, but provided related information about it. This had been accepted for analysis in two ways: DAR or DPAR response categories.

The DAR category was defined as the response category wherein the participant had provided the desired features of the target lexical item, while the DPAR category was defined as the response category wherein the participant was not able to fully retrieve the name of the target lexical item, but was able to name some portions of the target lexical item's name. The WR category was defined as a response category where the participant gave the wrong response against the target picture. The NR category was defined as a response category wherein the participant did not provide any response to the researcher.

As far as scoring procedure was concerned, responses noted under the ER, DAR, DPAR, WR and NR categories were counted and reported. The mean and standard deviation of the responses was calculated and entered into Microsoft Excel 2007 (see Table 2).

Participant	Exact Response (ER)	Dubious Acceptable Response (DAR)	Dubious Partial Acceptable Response (DPAR)	Wrong Response (WR)	No Response (NR)
PAD-1	29	5	5	61	7
PAD-2	7	0	4	27	68
PWAD-1	68	8	8	21	6
PWAD-2	85	11	1	8	3
PWAD-3	64	4	4	30	6
Overall Mean	50.6	5.6	4.4	29.4	18
Standard Deviation*	31.75	4.16	2.51	19.58	28

Table 2: Number of Responses made by the Participants Across All Lexical Categories

(Note. *Numbers are in approximate value.)

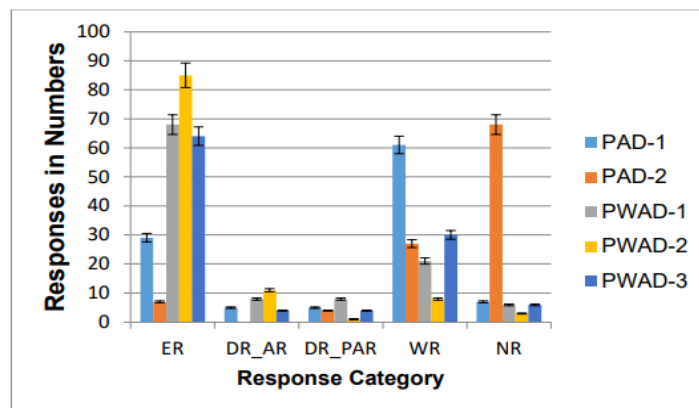


Figure 1: Responses given by the Participants

Table 2 and Figure 1 show that PAD-1 had comparatively better performance in producing exact responses, as compared to PAD-2. Even in the case of dubious response, PAD-1 had performed better on the test, as compared to PAD-2. In the case of wrong responses, although PAD-2 had comparatively fewer wrong responses, it accounted for a high number of no responses by the participant. Overall, PWAD had better scores at all levels of the responses, as compared to PADS.

In this research study, the wrong responses given by the participants were examined in terms of four lexical-relations, i.e., Hyponymy, Male-Female Pair, Meronymy and Taxonomic Sister relations across all lexical categories. Some of the wrong responses did not satisfy the definition of lexical relations, as proposed by Saeed (Saeed 1997, p. 68-70). These were either due to the shape of the target lexical item which might had been perceived, otherwise. Or, it was due to visual errors made by the participants. Such wrong responses are out of scope for discussion in this research paper.

Participants	Hyponymy	Male-Female Pair	Meronymy	Taxonomic Sister
PAD-1	3	2	1	28
PAD-1	7	0	0	9
PWAD-1	5	0	2	10
PWAD-2	2	1	1	4
PWAD-3	5	2	1	11

Table 3: Lexical-Relation Errors made by the Participants

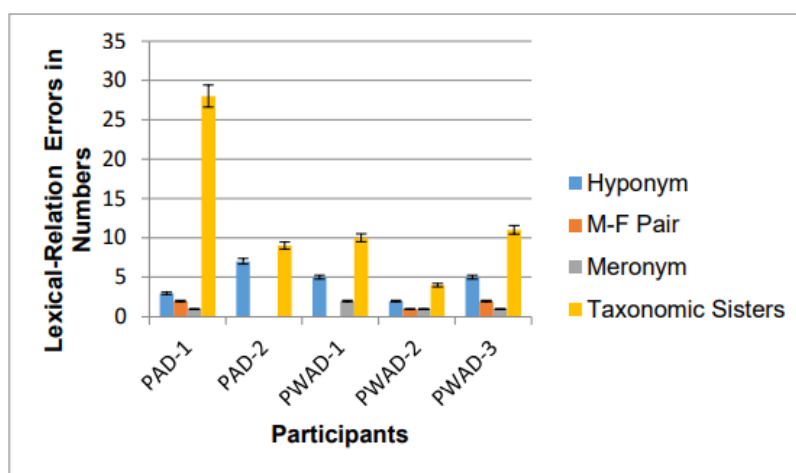


Figure 2: Lexical-Relation Errors made by the Participants

It could be seen from table 3 and figure 2 that most of the wrong responses fell in the category of Taxonomic Sisters relations across all the participants. This was followed by the production of errors in the category of Hyponymy lexical-relation. Both Male-Female Pair and Meronymy lexical-relations were produced very few in numbers across all participants.

5. Discussion

In this research study, two Hindi-speaking PAD were asked to name the lexical items when they were presented in the form of color pictures. The findings of the research study supported our hypothesis that PAD would make lexical-relation errors when colored pictures were shown. These errors fell in the category of four lexical-relation categories, i.e., Hyponymy, Male-Female Pair, Meronymy and Taxonomic Sisters.

According to Ferris & Farlow (Ferris, Farlow 2013, p. 1008-1009), the degree of lexical-relations errors coincides with the stage of Alzheimer Disease. PAD-1 had moderate Alzheimer Disease. This is the third stage of Alzheimer Disease, which is characterized by reduced inability to recall vocabulary items in terms of language breakdown. While

administering the test, the participants made the greatest number of wrong responses in the category of Taxonomic Sister. The participant had difficulty in retrieving the exact name of the lexical item. Instead, the name of a lexical from the same lexical category was produced. However, in the case of PAD-2, the pattern of error response generation is different. PAD-2 had severe Alzheimer Disease. This is the fourth and last stage of the disease. This stage of the disease is characterized by language, which is reduced to simple phrases or even single words. During the administration of the test, the participant did not make any response to the researcher. This represents the degree of neurological impairment in the participant. These observations when compared with the data of PWAD, there is no significant difference.

In this research study, PAD also produced errors at the level of lexical categories. In other words, when a picture of a lexical item was shown, PAD gave a response that accounted for a name of a similar lexical item from another lexical category. An example would be, a picture of Potato [alu] was interpreted as Mud apples [čiku]. This might be due to the shape and/or colour of the lexical item. Both Potato and Mud apples are round in shape and brown in colour. The discrepancy exhibited in PAD supports the purpose of diagnosing the degree of cognitive impairment. Often, PAD exhibits difficulty in understanding and/or drawing geometrical shapes while undertaking ADAS-COG neuropsychological tests.

There are many limitations of the current research study. Firstly, covering PAD in India is a huge gigantic task as not many cases are reported in the hospital. In this study, only two PAD participated in the study, which limits the extent of overall generalization to be made. Secondly, in the absence of a standardized Picture Naming Test in Hindi, the researcher had to design a Picture Naming Test in Hindi language. India is a multilingual country. Having a single picture naming test in one of the Indian languages does not resolve the issue of linguistic diversity existing in the country. The research study was conducted in the Delhi region. People in this city primarily speak Hindi and Indian English. The lexical items selected for the test were mostly available in this city. However, the test was not a reliable tool and hence, requires careful interpretation of the results. And thirdly, during the data analysis, all the responses were categorized into different response categories by the researcher independently. The researcher did not check for inter-rater reliability. Despite various limitations of the research study, the research study is able to establish that PAD does make lexical-relation errors when naming lexical items. Although the result of the research study requires careful interpretation, it also underlines the significance of considering this neurological brain disorder at the linguistic level. In addition, this research study might be the first research study, to our understanding, which attempted to explore lexical-relation errors in Hindi language. Hence, future research studies should focus on developing standardized protocol for Picture Naming Test in Hindi and conducting experiments involving noun processing with Hindi-speaking PAD using standardized test in Hindi. At a higher cognitive level, experiments assessing errors during verb processing in PAD should also be conducted.

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Appendix-1

List of Sample Pictures used in the Research Study



Mango
[am]



Peanuts
[mũngəfəli]



Potato
[alu]



Cat
[billi]



Crow
[kəa]



Motorcycle [moṭərsaikɪ]



Trousers
[pətəlu]



Table
[mez]



Radio
[redɪyo]

Appendix-2

List of Corresponding Semantic and Phonemic Cues in IPA Transcriptions used in the Research Study

S. No.	Target words in Hindi in IPA Transcription with English Translation	Semantic Cue in IPA Transcription with English Translation	Phonemic Cue in IPA Transcription with English Translation
1.	[am] “Mango”	[yəh p ^h əŋo ka raja hə] “It’s the king of fruits.”	[ɪsəka nam “a” se ʃoru hota hə] “It’s name starts from “a””.
2.	[mũngəfəli] “Peanut”	[ɪse hɪm t̪ ^h əŋd̪ m̃e toṛəkəɾ k ^h ate hə] “We eat this by breaking it during the winters.”	[ɪsəka nam “m̃u” se ʃoru hota hə] “It’s name starts from “mu””.

3.	[alu] “Potato”	[yəh səbzi zəmin kə̃ əndər pəda hoti hə] “This vegetable grows in soil.”	[ɪsəka nam “a” se ʃoru hota hə] “It’s name starts from “a””.
4.	[billi] “Cat”	[yəh janəvər “miau.....miau” kərəta hə] “This animal does meow...meow.”	[ɪsəka nam “bi” se ʃoru hota hə] “It’s name starts from “bi””.
5.	[kəa] “Crow”	[yəh pəkʃi “kau.....kau” kərəta hə] “This bird does kaau..kaau.”	[ɪsəka nam “kə” se ʃoru hota hə] “It’s name starts from “kə””.
6.	[moʃər-saɪkɪl] “Motorcycle”	[yəh do-pəhiya saɪkɪl ĩjn se čələti hə] “This two-tyre cycle works on engine”	[ɪsəka nam “mo” se ʃoru hota hə] “It’s name starts from “mo””.
7.	[pətəlun] “Trouser”	[ɪse hɪm ʃəŋgo pər pəhənəte hə] “We wear this cloth on our legs.”	[ɪsəka nam “pə” se ʃoru hota hə] “It’s name starts from “pe””.
8.	[mez] “Table”	[ɪs čiz ki čar ʃəŋge hoti hə.....yəh ləkəʃi se bənəti hə] “This thing has four legs...it’s made of wood”	[ɪsəka nam “mē” se ʃoru hota hə] “It’s name starts from “me””.
9.	[redɪyo] “Radio”	[ɪs ʃəntərə se hɪm gane sənəte hə] “We use this instrument to listen songs”.	[ɪs ʃəntərə ka nam “re” se ʃoru hota hə] “It’s name starts from “re””.



Meaning and Communication: The Problem of Language

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ABSTRACT

This paper examines the philosophical aspects of language, specifically the debate between naturalism and conventionalism in the theory of naming and meaning. Drawing from ancient Greek philosophical inquiries and Plato's dialogue *Cratylus*, it explores whether the relationship between names and their referents are grounded in inherent, natural connections or determined by arbitrary social conventions. *Cratylus*'s defense of naturalism suggests that names should reflect the essence of their objects, while Hermogenes's conventionalism views language as a result of communal agreement. The paper investigates how language operates through rule-based systems, with meaning emerging from shared understandings rather than fixed truths. Illustrative examples, including analyses by John Hospers, highlight the practical implications of these theories for communication. The study suggests that while conventionalism enables linguistic flexibility and cultural variation, it also underscores the importance of mutual intelligibility in effective communication. This philosophical investigation offers critical insights into the foundational role of language in human thought and social interaction.

Introduction

The philosophical investigation of language has become increasingly captivating over the past few centuries. Considerations of language are relevant to various areas of scientific research as well as to theoretical inquiry. Language is not merely a medium of communication but a central phenomenon that shapes human thought, culture, and existence. Philosophical reflection on language transcends disciplinary boundaries, engaging not only linguists and cognitive scientists but also logicians, phenomenologists, and metaphysicians. As such, language stands at the crossroads of scientific inquiry and theoretical speculation, serving as both the subject and the instrument of analysis. Throughout the history of philosophy, language has been represented through a range of contrasting metaphors and conceptual frameworks. On the one hand, it is celebrated as an indispensable analytical tool, enabling the precise articulation of ideas and facilitating rational discourse. On the other hand, it is critiqued as a distorting mirror—an imperfect image of reality that conceals more than it reveals. For some thinkers, language is viewed as a natural bearer of mental content—an innate capacity intricately bound to human cognition. Others regard it as a contingent artifact—an evolutionary accident or a culturally inherited system that limits rather than liberates human understanding.

Philosophers have variously conceived of language as the forge of thought, suggesting that thinking itself is impossible without linguistic structuring, or as a form of life, deeply embedded in the practices and social contexts that give it meaning. It has been considered a mathematical system governed by formal rules and logical constraints, as well as a divine

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blessing. This sacred gift enables communion with others and the transcendent. Yet just as often, language has been described as a hindrance to the unmediated communication of souls—a barrier that veils truth beneath layers of convention and ambiguity. In some traditions, language is hailed as the pathway to truth—a medium through which beings disclose themselves. In others, it is cast as a devious instrument—an unreliable guide better replaced by silence, meditation, or the direct contemplation of being. This wide array of philosophical positions highlights the profound complexity and ambivalence that language inspires.

This paper explores the rich and often conflicting conceptions of language by examining the evolution of philosophical thought on the subject. From classical theories of representation to contemporary debates on meaning, embodiment, and power, the aim is to trace how language has been understood both as a reflection of reality and as a force that constructs it. In doing so, we may gain a deeper appreciation not only of the intricacies of linguistic philosophy but also of the central role language plays in defining what it means to be human.

Structure of Language and Its Functions

Language serves as the primary tool for human communication. It is a system made up of words that are systematically organized into sentences. At its core, language is not just a random collection of words or signs; rather, it provides a structured framework through which words acquire meaning and significance. This meaning is governed by rules, which in turn help define how language operates. In essence, language can be understood as a system of rules and the meanings these rules convey. These rules, along with the meanings they encompass, form a structured system that we recognize as "language." It functions through a set of conventions that govern both written signs and spoken words, typically organized in a sequential and ordered manner.

The functioning of signs within language is guided by established rules, and meaning is often created through causal relationships or resemblances. For example, a sign may represent something within a rule-based system, but it is also important to recognize that signs can carry both conventional meanings (those shaped by societal agreement) and natural meanings (those inherent to the sign itself). Signs vary widely in form—they may be spoken or written words, images, sounds, gestures, or even noises.

Consider the symbol on a train that indicates the "ladies' compartment": this is a purely conventional sign, whose meaning is derived from cultural agreement—an image that helps distinguish the ladies' compartment from other sections of the train. The phrase "ladies' compartment" itself bears no intrinsic resemblance to the space it denotes. In contrast, some signs may exhibit a more natural relationship to their meaning. For instance, the image on the compartment door might intuitively suggest that the space is reserved for women based on visual cues. Nevertheless, such meanings are still reinforced by linguistic conventions and societal norms. Thus, while certain signs may appear to have natural associations, the broader system of meaning within language remains governed by rules—rules that are ultimately conventional and shaped by collective human agreement.

Early Philosophical Perspectives on Language

In ancient Western philosophy, the relationship between language and reality emerged as a significant topic, particularly within the context of ontology—the study of being and existence. Early explorations of language were framed as attempts to understand how names and words correspond to the world around us. For instance, Plato, in his dialogue *Cratylus*, examined

whether names are naturally connected to the things they signify or merely the result of social convention. Aristotle later contributed a more systematic view in *On Interpretation*, where he analyzed how spoken sounds symbolize mental experiences, which in turn correspond to things in the world. Philosophers of this period sought to investigate the nature of names: How do names carry meaning, and what is the connection between a name and the object, event, or concept it denotes? Essentially, they asked how language functions as a bridge between human thought and external reality.

The debate surrounding this issue was especially significant during the 6th and 5th centuries BCE among Greek philosophers, a period marked by profound inquiry into the nature of existence and the role of human perception in interpreting the world. During this time, thinkers such as Heraclitus, Pythagoras, and later Plato and Aristotle pondered crucial questions: Do humans act according to nature, or are their actions shaped by societal conventions? Furthermore, the philosophers explored whether the names we assign to objects are simply arbitrary, invented by society, or whether they reflect some deeper, inherent order in nature. One of the central questions that emerged from these discussions was whether the act of naming—and the conventions employed in language—might distort or misrepresent the reality they seek to describe. For instance, if names are chosen arbitrarily, according to cultural conventions, do they truly reflect the essence of the things they denote? Conversely, if language is deeply rooted in nature, might it more accurately align with the underlying structure of reality itself?

At the heart of this debate is a key issue: whether language is a product of nature (inherent and universal) or a product of convention (constructed and culturally determined). This duality—nature versus convention—has become one of the most important and enduring questions in the philosophy of language. Should language be seen as an arbitrary system of signs, or does it have a deeper connection to the essence of things in the world? This tension between nature and convention in the origins of language remains central to philosophical discourse today. By examining how early Greek philosophers grappled with these ideas, we can better understand the foundational debates that continue to influence contemporary discussions on the nature of meaning, reality, and language itself.

Naming and ontological relationship

The world around us is saturated with words, and in their simplest form, words are names. Everything that exists in the world is identified and recognized by its name. However, it is also true that not all words correspond to tangible, existing objects. Some words, though they don't directly refer to physical things, still point to an underlying "essence" or concept. These words, which don't correspond to specific objects, are not typically considered "names" in a grammatical sense but are still integral to how we understand and engage with the world. Despite this, the primary function of language is to identify and label the things that exist. This is a fundamental aspect of human experience—naming is how we categorize and understand the world around us. For instance, the term "human being" refers to a class of entities, and within this class, each individual is further identified by a specific name. Thus, names serve to identify both the collective category (such as "human") and the individual instances within that category (such as "John" or "Marie"). In this way, language operates as a system of categorization that applies to both existing and non-existing entities.

However, a key question arises: What is the exact relationship between a name and the object it corresponds to? How does a word or name connect with the thing it represents?

Cratylus: Naturalism vs. Conventionalism

The relationship between names and objects is at the heart of one of the most important philosophical dialogues in Western thought, Plato's *Cratylus*. In this dialogue, the question of how names relate to the things they signify is examined in depth, with a particular focus on whether this relationship is natural or arbitrary. The conversation in *Cratylus* unfolds in three distinct parts, each addressing different aspects of the problem.

In the first part of the dialogue, we encounter the theory of naturalism, which posits that names have an intrinsic and natural connection to the objects they represent. According to this view, the name of an object is not arbitrary; rather, it is inherently tied to the nature of the object itself. For example, a name is not simply a label, but an essential part of the identity of the object it signifies. This perspective suggests that the act of naming is not a human invention but rather a discovery of the natural relationship between language and the world.

The second part of the dialogue shifts towards etymology and mythology, where Socrates explores how names are derived from the essence or nature of the objects they represent. Here, Socrates uses the study of word origins and stories from mythology to argue that names are not arbitrary but rather reflect a deeper, often hidden, connection to the objects they signify. This view reinforces the idea that names carry an inherent meaning that is rooted in the essence of the things they describe.

In the third and final part of the dialogue, Socrates returns to the question of whether names are indeed connected to the objects they refer to. He introduces the notion of names as images or pictures of the objects they represent. In this discussion, Socrates suggests that we must assess whether a name is truly a name of an object, or whether it is merely a representation. This raises a crucial point: at a certain stage in the analysis, we must recognize that the name of an object and the object itself can be considered separately. The name serves as a symbolic representation, but it may not necessarily capture the complete essence of the object. Therefore, the object exists independently of the name, and the relationship between the two becomes more complex.

Through the *Cratylus* dialogue, we see the deep philosophical exploration of language and its role in defining and understanding the world. The debate between naturalism and conventionalism—the idea that names either have an inherent connection to the object or are simply agreed-upon conventions—remains one of the central issues in the philosophy of language. This discussion also highlights the tension between the object and the name, suggesting that language can both reflect and shape our understanding of reality in profound ways.

Conventionalism: The Role of Social Agreement

Plato's *Cratylus* is a significant philosophical dialogue that explores the complex relationship between language and reality. It features three central characters—Hermogenes, Cratylus, and Socrates—each representing different viewpoints about the origin and function of names in relation to the objects they signify. Among these perspectives, the dialogue contrasts two main theories: naturalism, represented by Cratylus, and conventionalism, championed by Hermogenes. Cratylus argues from the standpoint of naturalism, which holds that names are naturally connected to the objects they refer to. According to him, the relationship between a name and its corresponding object is not arbitrary or created by humans, but rather, it is dictated by the inherent nature of both the name and the object. This view suggests that names are not merely

convenient labels but rather have a necessary, essential connection to the things they denote. In Cratylus's account, names are almost like natural extensions or reflections of the objects they describe.

This belief leads to an important implication: if the relationship between names and objects is necessary and fixed, then it becomes meaningful to speak of the truth or falsity of a name. In other words, if someone assigns a name to an object that does not match its essential nature, that naming is not just incorrect—it is false in a deeper, more philosophical sense. The truth of a name, in this view, is not subjective or dependent on social context; it is objective and universally valid.

To clarify his position, Cratylus provides illustrative examples. Consider the name 'Hermogenes', which etymologically means "the son of Hermes." Cratylus argues that for someone to bear the name Hermogenes truthfully, he must be the son of Hermes and possess the qualities or essence attributed to Hermes. If this is not the case—if the individual neither descends from Hermes nor embodies any of Hermes' characteristics—then calling him Hermogenes is a false application of the name.

Another example Cratylus uses is the name 'Dasarathi', which translates to "the son of Dasaratha." If we were to assign the name Dasarathi to someone who is not Dasaratha's son and who has no resemblance or connection to him, the use of that name would again be incorrect. According to Cratylus, such misnaming is not merely a linguistic error within a particular language community but a universal mistake, independent of cultural or linguistic contexts. From this line of reasoning, we can extract three key tenets of Cratylus's naturalistic theory of language:

1. *Necessary Connection*: A name has a necessary and intrinsic relationship to the object it refers to. The features of the name and those of the object are harmonized in such a way that they are made for each other.
2. *Objective Truth*: The correctness of a name is not a matter of subjective interpretation or local linguistic practice. It is grounded in the actual nature of the object, which determines whether a name is true or false.
3. *Universality*: The truth of a name's relation to its object is globally valid, transcending cultural or linguistic differences. If a name is false in one context, it is false in all contexts, and similarly, a true name holds its truth universally.

This view stands in direct opposition to conventionalism, which Hermogenes supports. According to the conventionalist perspective, names are established by social agreement or custom. They do not possess any inherent or natural link to the objects they signify. Instead, their meaning and validity come from the collective decision of a language community. Thus, under conventionalism, the assignment of names is flexible, context-dependent, and open to reinterpretation or change.

The tension between these two positions—naturalism and conventionalism—not only defines much of the Cratylus dialogue but also continues to influence contemporary debates in linguistics, semiotics, and the philosophy of language. It raises enduring questions about whether our words reflect the world as it is, or whether they are simply tools we use to organize and navigate our shared experiences of it.

Language, Rules, and Communication

In contrast to the naturalist perspective, the conventionalist view of language emphasizes the role of social agreement in the assignment and use of names. For a conventionalist, there is no inherent or necessary relationship between a name and the object it refers to. Rather, names are understood as arbitrary signs, whose meanings are established through human convention and collective usage. It is not the nature of the object that dictates its name, but the mutual understanding and agreement among language users.

According to this view, the link between a name and its object is not inviolable or fixed. Instead, the act of naming is entirely dependent on shared linguistic practices. A word refers to a particular object simply because a community of speakers has agreed to use it that way—not because of any natural connection. Therefore, the question of whether a name is intrinsically correct or incorrect does not arise. What matters is whether the name is used in accordance with the established conventions of the language being spoken.

For instance, we do not question whether the word “tree” is the correct name for that tall, leafy plant—we simply accept it because English speakers have collectively agreed to refer to it that way. If the convention were to change, and the word “stone” was now used to refer to what we previously called a “tree,” then, under the new agreement, “stone” would be just as valid a name. In this sense, names can be reassigned or modified without losing their validity, as long as the new usage is mutually understood and accepted by the community. This idea is eloquently illustrated by philosopher John Hospers in his book *An Introduction to Philosophical Analysis*. He presents a hypothetical scenario: Imagine someone decides to use the sound “lamp” not to refer to a source of light, but instead to refer to a chair. Now, if they sit on a chair and say, “I’m sitting on a lamp,” the conventional English speaker would find this false, because the term “lamp” traditionally refers to an object that emits light. However, from a purely conventionalist perspective, there is nothing inherently wrong with this new usage. The person is simply assigning a new meaning to an existing sound. In order to avoid confusion, they would need to inform others of this change in meaning, clarifying that their use of the word “lamp” diverges from its conventional use. Still, even with clarification, this unconventional usage would likely lead to communication difficulties, as listeners would have to constantly reinterpret the speaker’s intention and adjust their understanding of the word “lamp” accordingly. Hospers’ example demonstrates the pragmatic limits of conventionalism: while names can be changed at will, effective communication depends on shared understanding. If individuals arbitrarily assign new meanings to familiar words without consensus, the purpose of language—clear and efficient communication—can be undermined. Therefore, even within a conventionalist framework, consistency and agreement within a language community remain essential.

To summarize, conventionalism holds the following key points:

No Necessary Link: There is no essential or natural connection between a name and the object it refers to.

Communal Agreement: Naming is based on social consensus; meaning is established through common use.

Flexibility of Naming: Names can be changed or reassigned without error, as long as the new usage is agreed upon.

Context-Dependent Truth: A name is not true or false in isolation; its correctness depends on whether it aligns with the current linguistic convention.

In this way, conventionalism presents a view of language as a dynamic, evolving system—shaped by human interaction, responsive to change, and grounded in shared

understanding rather than intrinsic meaning. It shifts the emphasis from what a name "is" to how it is used within a particular community and context.

Conclusion

Such complications are needless. There is no right or wrong if one goes for it or against it. But it will only be confusing to communicate. It will be false if one says that "I am sitting on a lamp" and uses the word "lamp" in the conventional sense that s/he has just rejected. What we all know that Language is something that gives meaning to words or signs that are guided by various rules, or language is something that explains the meaning of the rules. Then we can claim that language is a function where rules and their meanings belong. We can also say that rules and their meaning together make a set called 'language'. The events that we may consider as a function are rule governed serially ordered written signs and spoken words. Of course the things that we consider as a function of a sign which is perhaps created by some rules, usually there is a causal relation or relation of resemblance. And the meaning of that thing is determined by the rules or more clearly conventional rules. But it is also true that some signs may have both conventional and natural meaning over the rules. It is no matter how a sign does express its meaning referring to an object. The sign may be a word which is written or spoken or it may be pictures, images, sounds or noises and gestures or indications. Human societies existing in every part of the world are seen to follow certain rules of speech communication. As the speaker expresses himself using certain socially accepted rules of language, in the same way the hearer too follows the same set of rules to respond to the same words or signs. Moreover, it is possible to give explanations about some rules of speech communications while some rules are rather accidental. Furthermore, some rules can be explained as conventional. However, following conventionalism, naming has happened arbitrarily and in this way if we change the name of an object, then although the same rules may not be followed, it would not be wrong. We can oppose the naming of an object and replace it with another. In this case there will be some disasters in communication but it would not be wrong. It seems for this reason that calling an object by different names may have given rise to several language communities. So, according to conventionalism, the choice of words for communication is arbitrarily selected and behind it remains the common interest of every man belonging to different linguistic backgrounds.

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Lexical Semantic Activation in High and Low Proficient Bilinguals

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ABSTRACT

Bilingual speakers have the surprising skill to choose appropriate words from the intended language while preventing hindrance from the unintended language in their mental lexicon. This creates a confusion whether the representations of the language-not-in-use interfere during the production of the language in use or not. If at all they interfere, it is not clear about how they are able to prevent this massive interference from other representations. There is still no consensus regarding the lexical-semantic system in bilinguals. One set of models claim that the semantic representations of both the languages are separate and another set states that they have a shared representation. There is also no conclusive evidence regarding the variation in this representation in terms of bilingual proficiency. Hence, the main aim of the present study was to investigate the effect of proficiency in lexical semantic activation in Malayalam- English bilingual adults. Forty individuals with no neurological deficits participated in the study. They were divided into two groups based on their proficiency as high proficient and low proficient groups with 20 members in each group respectively. The study consisted of two experiments with two tasks each. Experiment 1 and 2 consisted of semantic and translational primes respectively. Participants were asked to name the picture stimulus preceded by cross linguistic orthographic primes in Malayalam and English in task 1 and 2 respectively. The reaction time and accuracy of the responses were measured across the tasks. Results revealed a significant effect of proficiency across task conditions in terms of both reaction time and accuracy measures.

Introduction

Bilingualism is defined as the use of at least two languages by an individual. The use of the two languages and the proficiency in each of them may change depending on the individual's opportunities to use the languages and with the exposure to other users of the languages (ASHA, 2004). Dating back to 1933, Bloomfield defined bilinguals as individuals with equal control of language as a native speaker. This definition constrained the number of individuals who could be classified as bilinguals as well as made it difficult to define the term 'native like fluencies'. Haugen in 1953 stated bilinguals as individuals who are fluent in one language but who can also produce complete meaningful utterance in the other language. It can be noted that, there is no standard definition of bilingualism which is agreed by all. It is best to view bilingualism as occurring on a continuum (Beardmore, 1986). On one end is a monolingual speaker and at the other end, an individual with an excellent native-like proficiency in both the languages. Bilingualism is multidimensional in nature. Various components and aspects have been identified as associated with the complexity of bilingualism. Classification of bilinguals can be done based

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on their degree of proficiency in the languages, age, context, manner of acquisition of the languages, and based on the underlying language representation. This may include:

- (a) Balanced / Dominant/Recessive/ Semi bilinguals
- (b) early/late,
- (c) simultaneous/successive,
- (d) compound/co-ordinate/subordinate bilinguals

The representation of the two languages in bilingual mental lexicon has constantly been a matter of debate in the field of bilingualism. A number of hypotheses and models have been put forth by various authors to describe the bilingual lexical semantic activation. The various hypotheses postulated regarding language representation in bilingual brain revolve around two concepts; whether both the languages have separate representations in the brain or they share a common locus.

- a. The common store hypothesis states that in bilinguals the two languages are represented in a single system which is independent of the language. In this system, the translation equivalents of both the languages share their conceptual representation.
- b. The separate store hypothesis states that there are two separate, language- specific, independent representational systems for both the languages. Here, each of the words in a translational pair will have its own separate conceptual representation.

Various models have been put forth based on the above hypotheses. Models which assume separate representations of lexicons claim that there is selective activation of words in each of the languages whereas models which assume an integrated lexicon supports a non-selective and parallel activation of words in both the languages. The proponents of a language specific lexical selection argues that during lexical access, the two languages may get activated but the selection mechanism will activate only those language nodes related to the intended language and hence there is no competition or interference by the other language (Costa & Caramazza, 1999). In contrast, those advocating a language non-specific model claim that the lexical nodes of both the intended and the unintended languages get activated together and then compete for their selection within the language and between the languages (Green, 1986 ; Poulisse & Bongaerts, 1994). According to this model the final selection of the lexical node of the intended language occurs through the differential activation of lexicons of both the languages. This is explained through two assumptions. First assumption states that there is a higher level of activation of the lexicon of the target language compared to non-target language (Poulisse & Bongaerts, 1994). The second assumption talks about the inhibition of the non-target lexicon after both the lexicons get activated equally.

The Word Association model (Figure 2.1) proposes that a bilingual accesses concepts of L2 by means of the L1 lexicon. When a word in L2 is presented, a bilingual will initially translate the word into L1 and then access the conceptual representation for that word. According to this model, naming a picture in L2 includes five-steps:

- (1) recognizing the image;
- (2) retrieval of the concept;
- (3) retrieval of the L1 word;
- (4) retrieval of the equivalent L2 word;
- (5) naming the L2 word.

Consequently, following all these longer steps picture naming may take substantially longer time than translating a word from L1 to L2 as translation involves less number of processes ((1) recognizing the L1 word; (2) retrieval of the L2 word; (3) naming the L2 word).

This hypothesis was verified by Potter, So, Eckardt, and Feldman (1984) and found that the same amount of time was taken by the participants to name a picture in L2 and to translate a word from L1 to L2. This result indicated that both L1 and L2 lexicons access the conceptual store directly. Further, this finding has led to the development of the Concept Mediation model (Potter et al, 1984).

The Concept Mediation model (Figure 2.2) claims that in bilinguals concepts are mediated directly between the separate lexicons and the conceptual store (Potter et al, 1984). It means that each language has a direct access to the conceptual store, Hence picture naming and translational tasks will require equal number of processing steps.

Concept mediation is also explained with respect to the development of L2. During the initial period of development of L2 the bilingual mental lexicon is described by the Word Association model. In the later stages, as the bilingual's proficiency in L2 increases, there is a drift towards a Concept Mediation model. This notion was proved by Dufour and Kroll (1995), using sentence verification tasks in more fluent and less fluent bilinguals. They noted that bilinguals who were more fluent had the capability to use conceptual links in within- and cross-language conditions successfully while less fluent bilinguals were more dependent on their L1. These findings suggest that as the proficiency in L2 increases, there is a developmental shift from translation strategies towards direct concept mediation (Chen, 1992). During the transition stage, there is a period where bilinguals employ both translating and conceptual mediation strategies. This developmental hypothesis claims that as the conceptual links become strong and established, bilinguals use only a direct conceptual mediation strategy which results in the deterioration of the lexical links. However, many cross language experiments provide evidence that lexical links are still maintained by high proficiency bilinguals even in the later stages of development. Studies have found that in bilinguals of all proficiency levels, translation from L2 to L1 is faster than translation from L1 to L2 (Dudic, 1999). Thus, based on all this evidence Kroll and Stewart (1994) came up with the idea of a mixed representational model of conceptual lexical level representations, which is called the Revised Hierarchical Model (RHM).

The RHM claims that in bilinguals both the languages, L1 and L2, are interconnected via two links: lexical links and conceptual links (Figure 2.3). Both the languages have a shared conceptual store as well as separate language independent lexicons. A major aspect of this model is the asymmetrical link between the language specific lexicons (Kroll & De Groot, 1997). It states that while acquiring L2, all the words in L2 get connected to L1 words whereas all L1 words may not essentially connect to L2 words (Kroll & Stewart, 1994). This means that at the lexical level there is a stronger connection from L2 to L1 than from L1 to L2. Hence backward translation from L2 to L1 is faster than forward translation from L1 to L2. At the conceptual level, there is stronger connection for L1 and weaker connection for L2, subsequently an L1 word will have a faster conceptual processing than its translational equivalent in L2. As the lexical connection between L2-L1 is stronger, when a bilingual is exposed to an L2 concept, he relies on L1 to gain access to the conceptual store. Most of the models on bilingual mental lexicon discuss highly proficient adults and RHM is one among the few models which explains transition from lower level to higher levels of proficiency (Hell & Tanner, 2012). According to this model the strength of the links between the two languages is dependent on the proficiency of the L2 and its relative dominance to L1. Initially bilinguals show exclusive reliance on their L1 for retrieving the concepts when they are acquiring their L2 and as their proficiency in L2 improves, they rely less on translation and access concepts more directly.

This process is explained by the Inhibitory Control model (Green 1986). According to this model, during the selection of the lexical node of the intended language, there is an inhibition on the lexical nodes of the unintended language. This happens with the help of language task schemas which are associated with every lexical node. A task schema is a mental procedural blueprint specifying the procedural subcomponents necessary to complete a task such as a translational naming or a picture naming.

Another model which explains the differential activation of target language during word recognition in bilinguals is the Bilingual Interactive Activation model (BIA) (Grainger and Dijkstra, 1992). This model claims that when a proficient bilingual speaker is presented with a visual word, a set of word candidates gets activated. This model explains the presence of a serial non-selective processing in conjunction with a parallel language specific processing occurring while inhibiting the language not in use. A word gets activated when its activation level reaches the threshold. The resting level of activation (threshold) of each word is affected by factors such as bilingual proficiency, a word's frequency and its use. An activated node in one language further sends activation to its corresponding language nodes which will send activation back to all words in that language and hence inhibit words in the other language. This ultimately results in the selection of the target language or facilitation.

Need for the study

Numerous studies have been conducted in the past investigating lexical semantic activation in bilinguals, very few studies have probed into the effect of bilingual proficiency on a primed paradigm naming task. The studies which are specifically done in Indian context are based on lexical decision or judgement tasks rather than the naming task. It has been found that naming tasks place more demands on one's language proficiency compared to a lexical decision task (Nicholas, 2014). This calls for the need to interrogate the lexical activation in bilinguals using a naming task.

The study also aims at studying lexical semantic activation in regard to high and low proficient bilinguals by using a cross language paradigm (Malayalam- English), the facilitation and inhibition offered by the 'language not in use' and thus the relationship shared by the lexical links of the two languages can be viewed in context to the proficiency levels of the participants.

The study also intends to use semantically related and unrelated primes in the language not in use in the naming paradigm; this would enable in understanding about language specific lexical selection and non selection by employing a naming task. The majority of the studies done in the past have used primed lexical decision tasks. The lexical decision task would be diluted by false positive and false negative responses which can be counteracted by employing the naming task.

Method

The study considered two experiments. In experiment 1, translational equivalent or non-translational primes were presented prior to the stimulus whereas in experiment 2, cross linguistic primes which were semantically related or unrelated to the stimulus were presented.

Participants

Participants considered for the study were in the age range of 18-25 years. They were divided into 2 groups based on their proficiency in L2 as high proficient and low proficient bilinguals, with 20 participants in each group. The high proficient group consisted of 13 females and 7

males (Mean age = 22.3 years) and the low proficient group consisted of 16 females and 4 males (Mean age = 20.45 years). All participants were Malayalam-English bilinguals with Malayalam as L1 and English as L2. The proficiency assessment was carried out using LEAP-Q (Ramya & Goswami, 2009) self rating questionnaire and a score of 3 or above in the domain of speaking was considered to have high proficiency in L2 as given by Haywards (2013). A written consent was obtained from all the participants prior to the experiments.

Participant Inclusion Criteria: All the participants were successive bilinguals having Malayalam as L1 and English as their L2. All of the participants had exposure to L2 (English) at least from 5-6 years onwards with a minimum of 10 years of exposure to the language. The participants were tested through informal screening for normal vision.

Stimulus Preparation & Presentation: The present study consisted of picture naming tasks. Sixty pictures were chosen from Malayalam (L1) based on their high frequency occurrence in the language. Another set of sixty pictures were selected in English (L2) from English word lists such as the Snodgrass 260 picture word list. To validate the pictures, they were subjected to picture –word agreement. The pictures were initially named by the investigator in Malayalam and English and then these pictures with its name were circulated among three judges (Malayalam-English bilinguals). The judges were asked to decide if the label (name) given to each picture is appropriate or not.

All stimuli were presented in cross-linguistic conditions with the target picture to be named in target language and the orthographic prime presented in the non-target language. The stimuli for the task were presented in visual mode on a 15.6 inch laptop using DMDX software. The participants were made to sit at a distance of 50cm from the laptop screen.

Materials and Tasks

The test material consisted of 120 picture stimuli and 120 orthographic primes. The stimuli were divided according to the two experiments under 4 tasks.

Experiment 1: Primed Naming using translational equivalent and non- translational equivalent primes.

Task 1: Naming in L1

Stimuli: In this task 30 stimuli in L1 were selected. The stimuli were further divided into two sets of 15 stimuli each based on the primes preceding the stimuli (pictures).

Prime: 15 translational equivalent primes and 15 non translational equivalent primes in English were presented. The translation equivalent and non translational equivalent primes were randomised and presented.

Task 2: Naming in L2

Stimuli: In this task 30 stimuli from L2 were selected. The stimuli were further divided into two 15 stimuli alike the previous task.

Prime: In the second task, 15 translational equivalent and 15 non-translational equivalent primes in Malayalam were used.

Experiment 2: Primed Naming using semantically related and unrelated primes.

Task 1: Naming in L1

Stimulus: In this task 30 stimuli from L1 were used. These stimuli were further divided into two sets having 15 stimuli each.

Prime: This task will consider 15 semantically related (SR) and 15 semantically unrelated (SUR) primes which are in English. Pictures with semantically related and unrelated primes were randomized and presented.

Task 2: Naming in L2

Stimulus: In this task 30 stimuli from L2 were selected. These stimuli were divided into two sets having 15 stimuli each.

Prime: As in the previous task of this experiment, this task also considered 15 semantically related and 15 semantically unrelated (SUR) primes which were presented in Malayalam. Pictures with semantically related and unrelated primes were randomized and presented.

Procedure

In each trial the prime was displayed on the screen for 500ms duration followed by an interval of 500ms. Following the interval, the stimulus picture was displayed for 2000ms. The participants were instructed to name the target picture in one particular language while ignoring the prime presented in the other language. The naming responses from the participants were recorded instantly using Check vocal software available in the DMDX program.

Scoring and Analysis: The reaction time and accuracy of the response for word naming in L1 and L2 were analyzed for semantically related -unrelated primes and translational equivalent and non-equivalent primes. The data was coded, tabulated and subjected to statistical analysis using Statistical Package for Social Sciences SPSS software version 21.0.

Results and Discussion

The primary aim of the study was to investigate how the lexical semantic activation in L1 and L2 varies with proficiency in high and low proficient bilinguals. 40 Participants in the age range of 18-25 years were considered for the study. They were divided into 2 groups of high proficient and low proficient bilinguals comprising 20 participants each based on their speaking proficiency in L2 as deferred from LEAP-Q. Shapiro Wilks test of normality was administered and two participants from each group were found as outliers. Hence, their data were removed resulting in each group having data of 18 participants. A test of normality was administered again and it was found that reaction time values were normally distributed ($p>0.05$) but accuracy values were not normally distributed for all parameters. Hence parametric tests were carried out for reaction time measures and non-parametric tests for accuracy scores. Statistical analysis for calculating the mean reaction time and accuracy was done using the software Statistical Package for Social Sciences (SPSS) version 20.0.

Objectives of the study were as follows:

1. To investigate the directional pattern of facilitatory - inhibitory effects in translational priming from English to Malayalam (L2-L1) and Malayalam to English (L1-L2) in high and low proficient bilinguals
2. To investigate language specific lexical selection and non selection in bilinguals.

3. To investigate lexical semantic activation across high and low proficient bilinguals in L1 (Malayalam) and L2 (English) naming.

The results of the present study are discussed under the following headings:

- A. Comparison of reaction time and accuracy on picture naming for translational equivalent and non equivalent primes in high proficient and low proficient groups.
- B. Comparison of reaction time and accuracy on picture naming in L1 and L2 separately for semantically related and unrelated primes in high proficient and low proficient groups.
- C. Comparison of reaction time and accuracy in picture naming in L1 and L2 naming between high proficient and low proficient groups

Objective I

a. Comparison of reaction time and accuracy on picture naming for translational equivalent and non equivalent primes in high proficient groups.

The overall mean and standard deviation (SD) were calculated for the performance of participants (Group I -High proficient and Group II -Low proficient) in terms of reaction time across the two prime conditions in L1 and L2 naming tasks. The overall mean, median and standard deviation were calculated for the accuracy measures obtained for two different prime conditions on the two tasks. Mixed ANOVA was carried out initially to compare the mean reaction time between high and low proficient groups on all naming conditions.

Further Paired-t test was carried out to check for significant difference within the high proficient group on different naming conditions (Table 2). Statistically significant differences were found in both L1 naming and L2 naming using translational primes.

Tasks	Conditions	Mean	SD
Task 1	L2-L1 TE	888.82	197.01
	L2-L1 NTE	1043.74	167.22
Task 2	L1-L2 TE	831.29	136.97
	L1-L2 NTE	887.39	109.15

Table 1: Mean and SD of mean reaction time in Group I (High proficient) across the two tasks of experiment 1

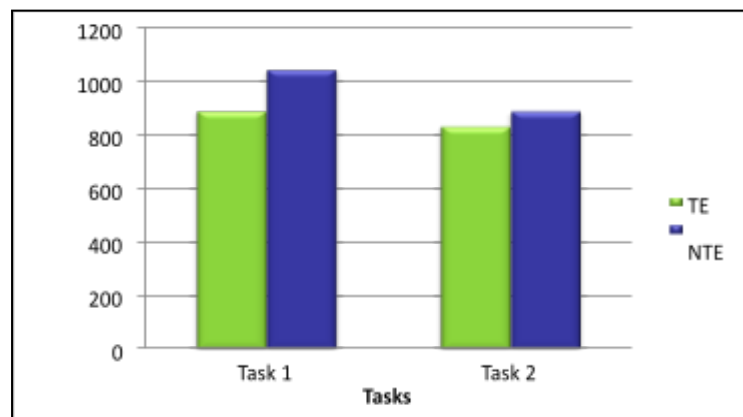


Figure 1: Mean reaction time of group I (High proficient) across the two tasks in experiment 1

Group	Pairs	t (df=17)	P
HP	L2-L1 TE & L2-L1 NTE	-4.970	0.000*
	L1-L2 TE & L1- L2 NTE	-2.402	0.028*

Table 2: Test statistic (t), degree of freedom (df) and statistical significance (p) of group I (High proficient) across the two tasks of experiment 1

(Note: *indicates values with statistical significance of $p < 0.05$)

As shown in table 1 and table 2 in high proficient group, for L1 naming, the mean reaction time was found to be less in condition with TE primes (Mean = 888.82) than with NTE primes (Mean= 1043.74) with $t(df) = -4.970$ and $p = 0.000$. A similar trend is observed in task 2 L2 naming. The test statistic obtained was $t(df) = -2.402$ and $p = .028$. That is, in L2 with prime in L1, the mean reaction time was lesser in TE (Mean = 831.29) than in NTE condition (Mean= 887.3912) and the difference is statistically significant. In reaction time studies, it is considered that the lesser the time taken to perform the task, the better is the performance. In both the tasks, the standard deviation (SD) was high for the first condition with TE primes.

These findings suggest that in highly proficient bilinguals cross language translational primes facilitate lexical selection in the target language which gives evidence that even if the two languages are getting activated, the selection mechanism activates only the language nodes of the intended language. This supports the language specific selection model of bilingual language representation (Costa & Caramazza, 1999). Also, this finding is in agreement with Altarriba et.al (2007) whose study showed significant translational priming effects in both language directions using masked and un-masked translational primes. This finding is also in line with Deema and Prema (2005); Rajini and Prema (2005) who found a significant effect of cross language translational priming in both the language directions. In similar lines, the performance was also analyzed considering the accuracy of scores also.

Tasks	Conditions	Mean (Max 15)	SD	Median
Task 1	L2-L1 TE	14.50	1.20	15.00
	L2-L1 NTE	12.72	1.74	13.00
Task 2	L2-L1 TE	14.22	0.73	14.00
	L1-L2 NTE	14.83	0.38	15.00

Table 3: Mean, SD and Median of accuracy in Group I (High proficient) across the two tasks of experiment 1

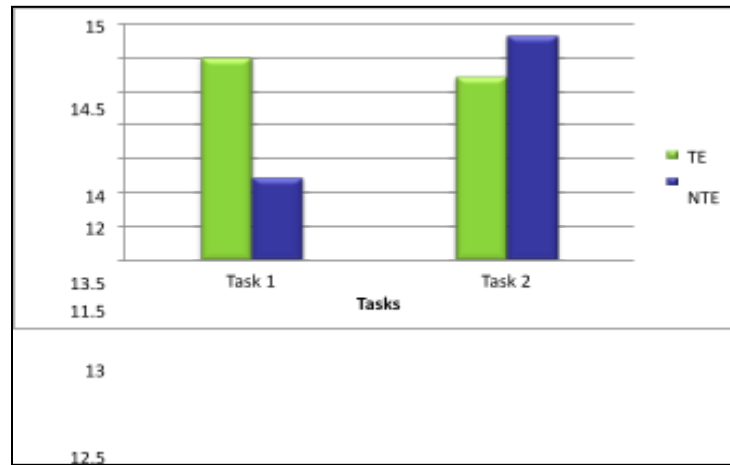


Figure 2: Mean scores for accuracy in group I across both the tasks in experiment 1

Group	Pair	Z	P
HP	L2-L1TE & L2- L1NTE	3.579	0.000*
	L1-L2 TE & L1-L2 NTE	2.517	0.012*

Table 4: | Z | score and p value of accuracy across the two tasks of experiment 1 in high proficient group.

(Note: *indicates values with statistical significance of $p < 0.05$)

In addition to mean reaction time, accuracy of responses was also obtained. The accuracy was better in condition 1 with TE prime (Mean = 14.50, Median = 15.00) than in condition 2 with NTE prime (Mean = 12.72, Median = 13.00). Similarly, in task 2, there was a significant difference in the accuracy scores across the two conditions ($p = .012$) except that the scores were better with NTE primes (Mean = 14.83, Median = 15.00) than TE primes (Mean = 14.22, Median = 14.00). The SD was obtained higher for condition 1. The maximum response was 15.

Initially Mann Whitney U test was performed to check for any significant differences in accuracy scores between the conditions. For L1 naming, comparison across both the conditions yielded $|Z| = 3.579$, $p = .000$. This suggests that there was a significant difference found for L2-L1 NTE, L1-L2 TE and L2SUR conditions. Further, within group analysis was done for both the groups using Wilcoxon's Signed Rank test. As given in Table 3, 4 and Figure 2, in task 1, the accuracy scores for the high proficient group were found to be significantly different for both the conditions ($p = 0.000$). These results indicate that in highly proficient bilinguals the cross language translational equivalent prime facilitates the selection of the intended language. This was evidenced by better mean reaction time and accuracy scores in L2-L1 direction and better mean reaction time L1-L2 direction. The facilitation effect was reflected more by reaction time measure in L1- L2 direction.

b. Comparison of performance of low proficient group across L1 and L2 naming using translational primes.

The performance of group II (Low proficient) across the two tasks of Experiment 1 are shown in Table 5 and Figure 3.

Tasks	Conditions	Mean	SD
Task 1	L2-L1 TE	917.56	141.19
	L2- L1 NTE	1068.00	172.40
Task 2	L1-L2 TE	910.75	158.68
	L1-L2 NTE	1012.55	123.38

Table 5: Performance of group II (Low proficient) across the two tasks

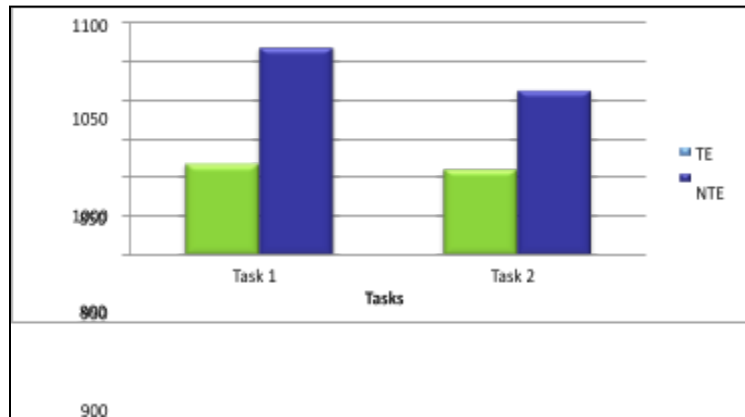


Figure 3: Mean scores of mean reaction time in group II (Low proficient) across the two tasks in experiment 1

Group	Pairs	t (df=17)	P
LP	L2-L1 TE & L2-L1 NTE	-4.272	0.001*
	L1-L2 TE & L1- L2 NTE	-2.345	0.031*

Table 6: Test statistic (t), degree of freedom (df) and statistical significance (p) of group II (Low proficient) across the two tasks of experiment 1

As depicted in Table 5, 6 and Figure 3, group II (Low proficient) participants showed a statistically significant difference between the two conditions of TE and NTE ($t(df) = -4.272(17)$, $p = 0.001$) in task 1. The mean reaction time was lesser for condition 1 (Mean = 917.56) than condition 2 (Mean = 1068.00).

In task 2, like task 1, the mean reaction time was lesser for condition 1 (Mean = 910.75) than condition 2 (Mean = 1012.55) and the p value also showed a statistically significant difference with $t(df) = -2.345$ and $p = 0.031$. These findings suggest that in low proficient bilinguals also cross language TE primes facilitates lexical selection in both L2-L1 and L1-L2 directions. The facilitation effect was better seen in L1-L2 direction compared to L1-L2 conditions with lesser mean reaction time in L2 naming than L1 naming. The descriptive statistics for accuracy scores of group II participants are shown in Table 7.

Tasks	Conditions	Mean	SD	Median
Task 1	L2-L1 TE	14.56	0.615	15.00
	L2-L1 NTE	13.83	1.20	14.00
Task 2	L1-L2 TE	12.78	1.96	13.00
	L1-L2 NTE	14.50	0.71	15.00

Table 7: Mean, SD and Median of accuracy in Group II (Low proficient) across the two tasks of experiment 1

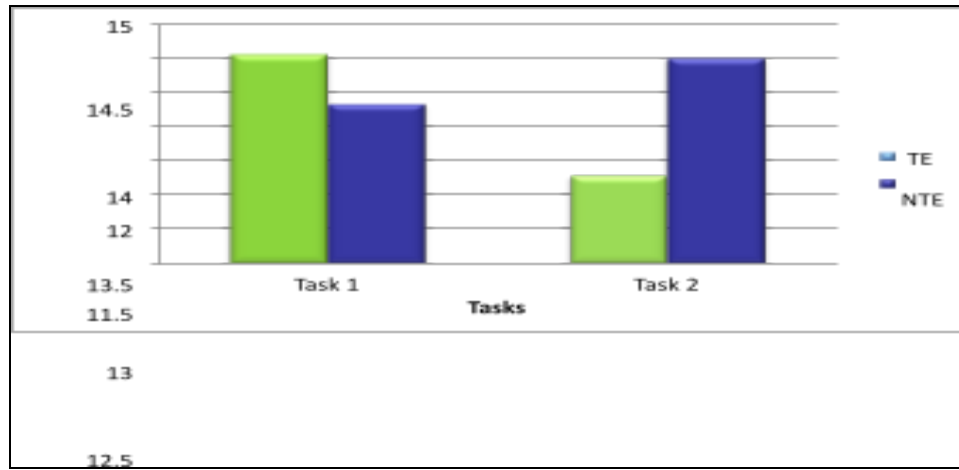


Figure 4: Mean scores for accuracy in Group II (Low proficient) across the two tasks of experiment 1

Groups	Pair	Z	P
LP	L2-L1TE & L2- L1NTE	2.089	0.037*
	L1-L2 TE & L1-L2 NTE	2.946	0.003*

Table 8: |Z| score and p value across the two tasks of experiment 1 in low proficient group

As depicted in table 7, 8 and figure.4, the accuracy scores of group II participants shows that in task 1, the performance was better in condition 1 (Mean = 14.56, Median = 15.00) than condition 2 (Mean = 13.83, Median = 14.00) and the p value showed statistically significant difference ($p = 0.037$).

In contrast, the accuracy scores from task 2 revealed that the performance was better in condition 2 (Mean = 12.78, Median = 13.00) than condition 1 (Mean = 12.78, Median = 15.00) and the difference is found to be statistically significant ($p = 0.003$). The accuracy scores were following a similar trend as seen in high proficient groups.

To summate, the first objective of the study was to compare the reaction time and accuracy on picture naming for translational equivalent and non equivalent primes in L1-L2 and L2-L1 conditions in high proficient and low proficient groups. It was found that the high proficient group performed better with TE primes in both L2-L1 and L1-L2 directions. Accuracy

scores were also better for TE compared to NTE. This facilitation effect of translational primes was reflected in terms of both mean reaction time and accuracy scores. The facilitation effect was found to be stronger in L1-L2 direction with relatively shorter reaction time hence suggesting an asymmetry between the lexical links of both the languages.

In the low proficient group the findings from task 1 was similar to that of the high proficient group. Whereas in task 2, naming in L2 (English), the accuracy scores were higher with NTE primes and were lower with TE primes which suggest that the accuracy scores failed to indicate the facilitatory effect in L1-L2 direction in a low proficient group. However while considering the reaction time measures, the facilitation effect of translational equivalent primes were seen in both the language directions with asymmetry noted in between the links. These findings from both the high and low proficient groups support the hypothesis of the RHM model (Kroll & De Groot, 1997) which suggests an asymmetry between the language specific lexical links of both the languages.

Objective II

a. Comparison of performance of high proficient group across L1 and L2 naming using semantic primes.

Table 9 shows the performance of group I (High proficient) across the two tasks of Experiment 2.

Tasks	Conditions	Mean	SD
Task 1	L2-L1 SR	1056.85	183.05
	L2- L1 SUR	1012.55	188.66
Task 2	L1-L2 SR	896.23	135.86
	L1-L2 SUR	898.01	141.12

Table 9: Mean and SD for mean reaction time in Group I (High proficient) across the two tasks of experiment 2

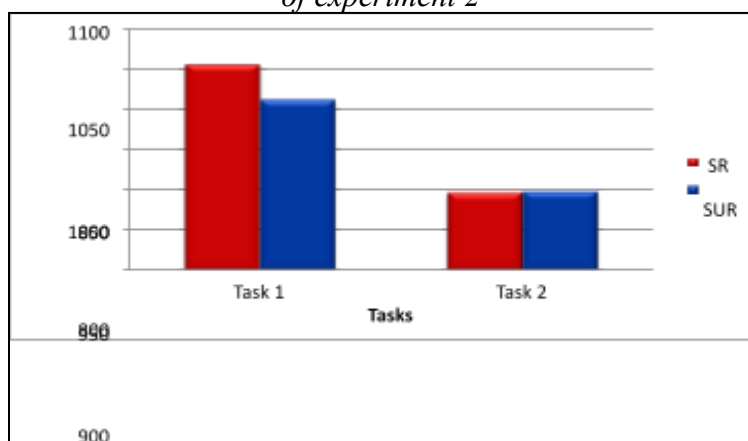


Figure 5: Mean scores of mean reaction time in group I (High proficient) across the two tasks in experiment 2

Groups	Pairs	t (df = 17)	P
HP	L2-L1 SR & L2-L1 SUR	1.194	0.249
	L1-L2 SR& L1- L2 SUR	-.094	0.926
LP	L2-L1 SR & L2-L1 SUR	.474	0.641
	L1-L2 SR& L1- L2 SUR	-2.654	0.017*

Table 10: Test statistic (t), degree of freedom (df) and statistical significance (p) of mean reaction time in group I (High proficient) across two the tasks of experiment 2

(Note: *indicates values with statistical significance of $p < 0.05$)

The analysis of results from Table 9, 10 and Figure 5 revealed that for task 1, the mean reaction time of high proficient group was longer in condition 1 with semantically related primes (Mean = 1056.85) and shorter in condition 2 with semantically unrelated primes (Mean = 1012.55) however the difference was not statistically significant ($p = 0.25$). In task 2, for L2 naming, the mean reaction time was slightly better in condition 1 (SR) (Mean = 896.23) than condition 2 (SUR) (Mean = 898.01) and p valued showed no statistical significance ($p = 0.09$). In both the tasks, the SD was high for condition 2.

Tasks	Conditions	Mean(Max 15)	SD	Median
Task 1	L2-L1 SR	13.17	1.58	13.00
	L2-L1 SUR	14.00	1.37	14.50
Task 2	L1-L2 SR	14.00	1.33	15.00
	L1-L2 SUR	14.28	1.01	14.50

Table 11: Mean, SD and Median of accuracy in Group I (High proficient) across the two tasks of experiment 2.

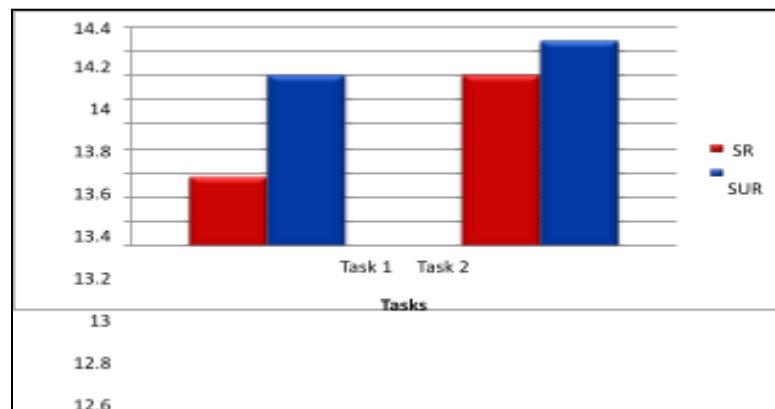


Figure 6: Mean scores of accuracy in group I (High proficient) across the two tasks in experiment 2

Groups	Pair	Z	P
HP	L2-L1 SR & L2-L1 SUR	1.814	0.070
	L1-L2 SR& L1- L2 SUR	0.611	0.541

Table 12: Test statistic | Z | and p value of accuracy in high proficient group across the two tasks of experiment 2

(Note: *indicates values with statistical significance of $p < 0.05$)

Wilcoxon Signed Rank Test was carried out to verify if there was any significant difference between the two tasks of experiment 1. The test statistic and p value are shown in Table 12. The analysis of accuracy scores of group I (Table 11) revealed that for task 1, the mean accuracy score was higher in condition 2 with semantically unrelated primes (Mean = 14.00, Median = 14.5) than condition 1 with semantically related primes (Mean = 13.17, Median = 13.00). The difference was observed to be statistically significant ($p = 0.005$). The value of SD was observed to be higher in condition 1.

Similarly in task 2, the participants performed better in condition 2 (Mean = 14.28, Median = 14.50) than condition 1 (Mean = 14.00, Median = 15.00) with relatively higher SD observed for condition 1. However the value of p did not show statistical significance ($p = 0.110$).

Findings from accuracy scores also suggests that cross language semantically related words caused interference in lexical selection of the target word which might have resulted in the reduced accuracy of picture naming in high proficient bilinguals. This finding is in support with Keatley and Gelder (1992).

b. Comparison of performance of low proficient group across L1 and L2 naming using semantic primes.

Tasks	Conditions	Mean	SD
Task 1	L2-L1 SR	983.47	146.26
	L2- L1 SUR	968.30	159.53
Task 2	L1-L2 SR	979.77	87.36
	L1-L2 SUR	1047.49	122.19

Table 13: Mean and SD of mean reaction time in Group II (Low proficient) across the two tasks of experiment 2

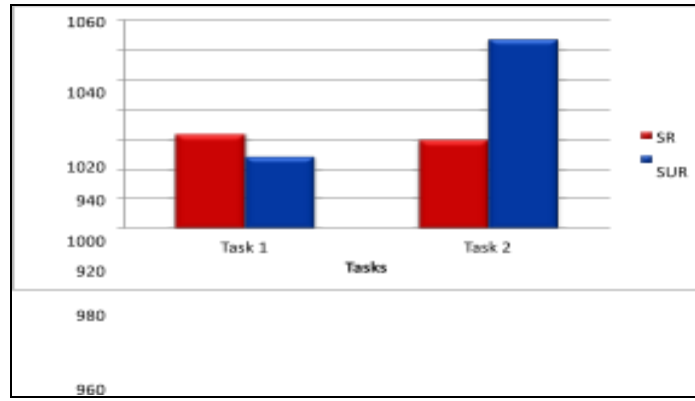


Figure 7: Mean scores of mean reaction time in group II (Low proficient) across the two tasks in experiment 2

Group	Pairs	t (df = 17)	P
LP	L2-L1 SR & L2-L1 SUR	.474	0.641
	L1-L2 SR& L1- L2 SUR	-2.654	0.017*

Table 14: Test statistic (t), degree of freedom (df) and (p) value of mean reaction time in group II across the two tasks of experiment 2

The mean reaction time for group II participants in task 1 (Table 13) reveals that the performance was better in condition 2 (Mean = 1012.55) than condition 1 (Mean = 1056.85) and p value did not show significant difference ($p = 0.641$). However in task 2, the performance was better in condition 1 (Mean = 896.23) than condition 2 (Mean = 898.01) and the difference was statistically significant ($p = 0.017$). The value of SD in both the tasks was higher in condition 2.

Tasks	Conditions	Mean	SD	Median
Task 1	L2-L1 SR	13.06	1.06	13.00
	L2-L1 SUR	14.56	0.78	15.00
Task 2	L1-L2 SR	13.72	1.18	14.00
	L1-L2 SUR	12.94	2.18	13.50

Table 15: Mean, SD and Median of accuracy for Group II (Low proficient) across the two tasks of experiment 2

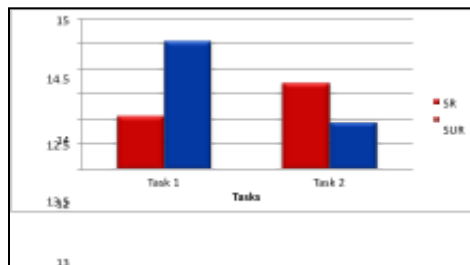


Figure 8: Mean scores of accuracy in group II (Low proficient) across the two tasks in experiment 2

Groups	Pair	Z	P
LP	L2-L1 SR & L2-L1 SUR	2.839	0.005*
	L1-L2 SR& L1- L2 SUR	1.597	0.110

Table 16: Test statistic |Z| and p value of accuracy in low proficient group across the two tasks of experiment 2

As represented in Table 15, Table 16 and Figure 8, the low proficient group had better accuracy scores in condition 2 (Mean = 14.56, Median = 15.00) than condition 1 (Mean = 13.06, Median = 13.00) of task 1 with p value observed to be non significant ($p = 0.641$). The value of SD was found to be higher in condition 1. Similar to the trend observed in task 1, results from task 2 also revealed that low proficient participants performed better in condition 2 (Mean = 13.72, Median = 14.00) than condition 1 (Mean = 12.94, Median = 13.50) and the difference was statistically significant ($p = 0.17$). The value of SD was higher in condition 2 for task 2.

The findings based on accuracy scores suggest that in low proficient bilinguals semantically related words in cross language do not cause interference in naming in target language. This finding is in support of the language-specific selection hypothesis (Costa et.al, 1999, 2000)

In brief, the second objective of the present study focused on comparing the mean reaction time and accuracy scores in picture naming for semantically related and unrelated primes in L1-L2 and L2-L1 conditions in high proficient and low proficient groups. In the high proficient group, the reaction time was better for SUR compared to SR on L1 naming while the accuracy scores were better for SR compared to SUR. For the low proficient on L1 naming, group reaction time was better for SR compared to SUR while the accuracy score was better for SUR compared to SR. For L2 naming also the same finding (better reaction time for SR and better accuracy scores for SUR) was seen. The results suggest that in highly proficient bilinguals, semantically related words in L2 cause interference in naming in Malayalam. This implies that during the lexical semantic activation, along with the target word in Malayalam, other semantic representations which are related to the target word may also get activated and compete with the target word for its selection. This competition further leads to interference in naming the target word. Thus, this finding supports the language non- specific selection hypotheses advocated by Green (1996) and Hermans et.al, (1998).

With respect to the low proficient group, the priming effect was similar to that of the high proficient group. It was noted that semantically related words in English impeded the selection of Malayalam words. That means there is language non- specific selection happening in the L2-L1 direction. The fact that naming accuracy was better with semantically related primes in task 2 suggests that accuracy scores failed to explain the semantic interference in low proficient bilinguals as did the mean reaction time.

Objective III

Comparison of reaction time and accuracy between high proficient and low proficient groups on L1 naming and L2 naming.

	Groups	Mean	SD
L1Naming (TE+ NTE/2)	HP	966.28	170.34

	LP	992.78	138.73
L2 Naming (TE+ NTE/2)	HP	859.34	113.50
	LP	961.65	108.26

Table 17: Comparison of average reaction time and SD between High and Low proficient groups across L1 and L2 translational priming conditions

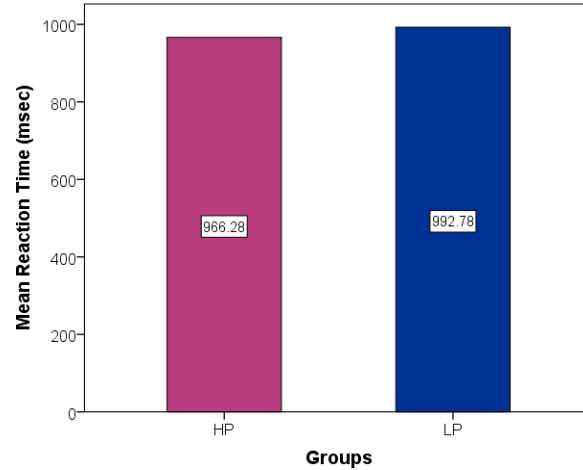


Figure 9: Comparison of average reaction time between high proficient and low proficient groups in L1 naming under translational priming condition

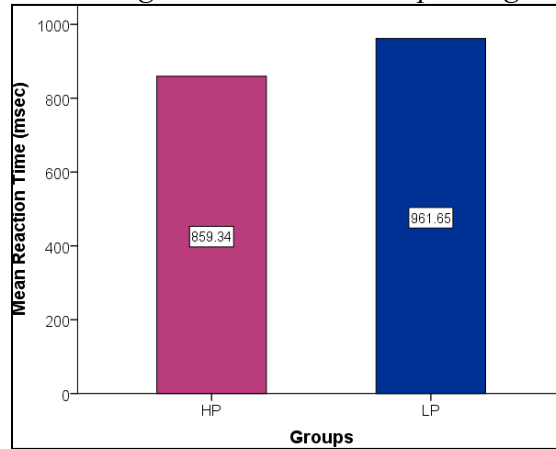


Figure 10: Comparison of average reaction time between high proficient and low proficient groups in L2 naming under translational priming condition

The third objective of the study was to compare the mean reaction time and accuracy on L1 naming and L2 naming between high proficient and low proficient groups. As a means, the average of the mean reaction time and accuracy was calculated for the two conditions of translational and semantic priming separately for L1 naming and L2 naming respectively. (E.g. L1 naming-translational prime = RT of L1 with TE prime + RT of L1 with NTE prime / 2 & L1 naming semantic priming = RT of L1 with SR + RT of L1 with SUR / 2). Similarly, the average of mean accuracy scores was calculated. These values were then subjected to Shapiro Wilk's test of normality and were found to be following normal distribution ($p > 0.05$).

Groups	Naming conditions	F(df)	P
HP & LP	L1- translational prime	1.32 (1)	.259
	L2- translational prime	9.43 (1)	.004

Table 18: Comparison of 'F(df)' value' and level of significance between groups and translational priming in L1 and L2

As shown in table 18, further between subject analysis revealed a significant difference in two conditions, that is, in L2 naming with translational prime ($F(df) = 9.43(1)$, $p = 0.009$) and L2 naming with semantic prime ($F(df) = 7.66(1)$, $p = 0.004$). This reflects significant difference only in the average of L2 naming under both translational and semantic priming conditions. One-way MANOVA was carried out to evaluate if there was any significant difference between the averages of mean reaction time and accuracy scores of L1 naming under semantic-translational priming and L2 naming under semantic- translational priming in high and low proficient bilinguals. Overall there was a statistically significant difference found for the average reaction time between the groups ($p = 0.000$). However, the average of accuracy scores did not show statistically significant difference hence it was not considered for further statistical analysis and only the average of mean reaction time was considered.

Table 17, Table 18, Figure 9 and Figure 10 show the comparison of group I and group II in L1 and L2 naming with translational primes. It can be inferred that the high proficient group performed better than low proficient group in both L1 and L2 naming when preceded by translational primes. The mean and SD of average reaction time in L1 and L2 naming using semantic primes for high proficient and low proficient group are shown in table 19.

	Groups	Mean	SD
L1SEM	HP	1034.70	168.40
	LP	975.88	137.15
L2SEM	HP	897.12	132.48
	LP	1013.63	91.39

Table 19: Comparison of average reaction time and SD between High and Low proficient groups across L1 and L2 semantic priming conditions

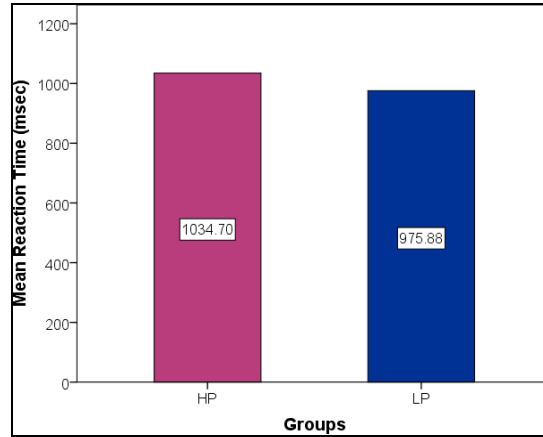


Figure 11: Comparison of average reaction time between high proficient and low proficient groups in L1 naming under semantic priming condition.

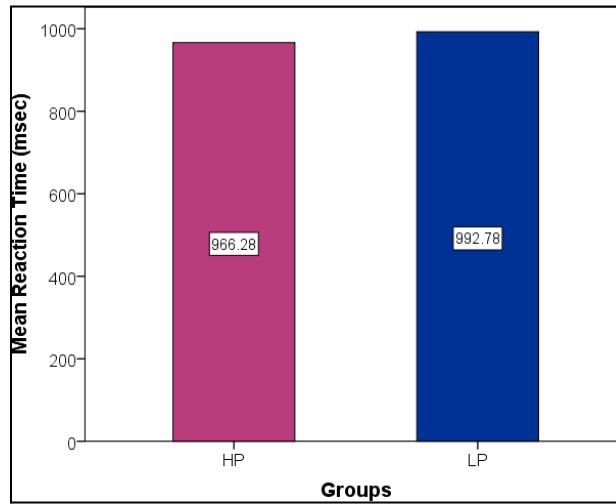


Figure 12: Comparison of average reaction time between high proficient and low proficient groups in L2 naming under semantic priming condition.

Groups	Naming conditions	F(df)	P
HP & LP	L1-Semantic prime	0.262(1)	.612
	L2-Semantic prime	7.66 (1)	.009

Table 20: Comparison of 'F(df)' value' and level of significance between groups and semantic priming in L1 and L2

From Table 19, Table 20, Figure 11 & Figure 12 it can be understood that on L1 naming with L2 semantic primes, the low proficient group (Mean = 975.88) performed better than the high proficient group (Mean = 1034.70). Conversely, in L2 naming with L1 semantic prime, the high proficient group (Mean = 897.12) had a shorter reaction time than the low proficient group (Mean = 1013.63). These findings indicate that high proficient bilinguals performed better than low proficient bilinguals for naming in L1 and L2 under translational priming. Whereas, under

semantic priming, low proficient bilinguals performed well for L1 naming and high proficient bilinguals responded well for L2 naming.

To sum up the findings, the main aim of the study was to see the effect of proficiency on lexical semantic activation. This was studied under three objectives. The first objective was to investigate the directional pattern of facilitatory - inhibitory effects in translational priming from English to Malayalam (L2-L1) and Malayalam to English (L1-L2) in high and low proficient bilinguals. The mean reaction time and accuracy in naming were compared across two language directions when presented with a cross language translational prime. The analysis of the results revealed that both high proficient bilinguals and low proficient bilinguals had a faster reaction time when the pictures were preceded by a cross language translational equivalent prime compared to translation non equivalent prime. This facilitation effect of cross language translational equivalent primes was seen in both L1-L2 and L2-L1 directions. However, it was also noted that the accuracy scores could not demonstrate the facilitation effect of translational primes in L1-L2 direction. This signifies that the effect of lexical boost can be expressed mainly in terms of the reaction time required for processing. An asymmetry in the strength of facilitation was observed; in both the groups the facilitation effect was more in L1- L2 direction than L2-L1 which supports the asymmetry link hypothesis postulated by the RHM model (Kroll & De Groot, 1997).

The second objective of the study was to investigate the language specific lexical selection and non selection in bilinguals. This was studied by comparing the reaction time and accuracy when preceded by a semantically related (SR) or semantically unrelated prime (SUR) again in cross language condition. It was found that in L1 naming, high proficient bilinguals had a shorter reaction time and increased accuracy of naming with SUR primes and a longer reaction time and decreased accuracy with SR primes even though the difference was not statistically significant in case of reaction time. This finding suggests that there is language non- specific selection in high proficient bilinguals in L2-L1 direction. For picture naming in L2, high proficient bilinguals performed better with SR cross language primes than with SUR primes. Nonetheless, the accuracy of naming was better with SUR primes though the difference was not statistically significant. An interesting similar finding was obtained for low proficient bilinguals in both L2-L1 and L1-L2 directions. Combining findings from both the groups, it can be inferred that semantically related words in English (L2) may offer inhibition to the activation of Malayalam (L1) words suggesting a language non-specific selection in L2-L1 direction and semantically related words in Malayalam (L1) may facilitate the activation of English words (L2) suggesting a language specific selection in L1-L2 direction. Hence we can conclude that the pattern of lexical semantic activation does not seem to vary across the level of proficiency when preceded by semantic primes. The third objective of the study was to investigate the lexical semantic activation across high and low proficient bilinguals in L1 (Malayalam) and L2 (English) naming. Comparison of average reaction time in L1 and L2 naming under translational-semantic priming revealed a better performance of high proficient group in both L1 naming and L2 naming under translational priming. With respect to naming under semantic priming, the low proficient bilinguals showed a better performance in L1 naming whereas high proficient bilinguals showed better performance in L2 naming.

Summary and Conclusions

The results of the study revealed that using translational primes, it was found that both the high proficient and low proficient group performed better with TE primes in L2-L1 and L1-L2

directions. This facilitation effect of translational primes was reflected in terms of both mean reaction time and accuracy scores except for task 2 (L2 naming) in low proficiency where the accuracy scores did not show the facilitation effect of TE primes. Thus the results show that the TE primes created a lexical boost in regard to the speed of processing. With respect to the second objective of the study it was found that both high and low proficient bilinguals employ a language non-specific selection in L2-L1 direction and a language specific selection in L2-L1 direction. Better reaction time and accuracy scores were seen for SUR compared to SR showing that inhibition was operational owing to which the reaction time would have been poorer in SR condition. Based on the third objective, the comparison of average reaction time in L1 and L2 naming under translational-semantic priming manifested a better performance of high proficient groups in both L1 naming and L2 naming under translational priming. In case of semantic priming, low proficient bilinguals showed a better performance in L1 naming and high proficient bilinguals showed better performance in L2 naming.

Thus the present study helps us to understand how the facilitation inhibition effects of semantic-translational primes vary across bilinguals based on degree of proficiency. It was found that the lexical semantic activation varied as a function of degree of bilingual proficiency. The direction of facilitation-inhibition during the lexical selection of both the languages varied across the tasks in high and low proficient bilinguals.

Implications of the study: The present study enables researchers to understand the lexical semantic activation (facilitation versus inhibition) in high and low proficient bilinguals by employing primed-naming task. The findings from the study reveals that translational equivalent primes facilitates faster naming in both high proficient and low proficient bilinguals. However, the quantum of facilitation offered by the cross language semantic primes varies across proficiency. The study also empowers ones understanding of language specific selection and non selection in regard to naming tasks and to verify this as a function of bilingual proficiency. It can be inferred from the findings that in both high proficient and low proficient groups, semantically related words in English (L2) seem to offer inhibition to the activation of Malayalam (L1) words thus suggesting a language non-specific selection in L2-L1 direction and semantically related words in Malayalam (L1) appear to facilitate the activation of English words (L2) hence suggesting a language specific selection in L1-L2 direction. To conclude, the pattern of lexical semantic activation does not seem to be varying across the level of proficiency when preceded by semantic primes.

Limitations of the study

It was noticed that some of the participants overrated their proficiency across certain domains in LEAP-Q. Objective measure of bilingual proficiency would have been considered but the extent of over estimation was limited to very few participants. Limited number of participants was considered for the study. Majority of the high proficient participants were mostly exposed to English language more than Malayalam language over the years which could have affected their performance in L1 naming. The study has considered pictures having borrowed names which could have been exempted.

Implications for future research

The study can be extended into the older bilingual population. Future research can be carried out using semantically related primes within L1 and L2 presented individually. In the present study, the primes were presented in cross-lingual conditions.

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Conjunct Verbs in Assamese and Bodo: A Comparative Study

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ABSTRACT

Assamese (ISO 639-3 code: asm) and Bodo (ISO 639-3 code: brx) employ conjunct verbs (CjV) of both [Adjective + Light Verb] and [Noun + Light Verb] patterns where the light verbs (LV) have limited meanings but grammatical functions. The CjVs in these languages share some common structural, grammatical, and semantic features. The light verbs are sometimes “restricted” in that they only collocate with specific nouns or adjectives whereas some nominals collocate with only their corresponding light verbs. Thus, the restriction of collocation in CjVs may be of two types, namely restriction of collocation of light verbs and restriction of collocation of nominals. For example- the light verbs [ni.ɽua] ‘REMOVE’ (Assamese) and [pʰɽɽr] ‘pw’ (Bodo) co-occur only with the nominals [bɔn] ‘weed (n)’ (Assamese) and [kʰɽgà] ‘mouth’ (Bodo) respectively in the conjunct verbs [bɔn ni.ɽua] ‘weed’ (Assamese) and [kʰɽgà pʰɽɽr] ‘introduce’ (Bodo); on the other hand, the nominals [buɽ] ‘pw’ (Assamese) and [digɽn] ‘value of water’ (Bodo) co-occur only with the light verbs [maɽ] ‘HIT’ (Assamese) and [zá] ‘EAT’ (Bodo) respectively in the conjunct verbs [buɽ maɽ] ‘immerse; dip’ (Assamese) and [digɽn zá] ‘become trench foot’ (Bodo). This study investigates the suitable collocations of nominals (nouns & adjectives) and light verbs in the conjunct verbs.

CjVs in Assamese and Bodo may be found in two different categories based on their meanings, namely literal CjVs and idiomatic CjVs. And, based on the transitivity, CjVs are found to be intransitive and transitive in these languages. Structurally, a considerable set of members of Assamese and Bodo CjVs are of multi-word patterns such as [N + Adj + LV], [N + N + LV], [Adj + N + LV], [N + Adv + LV], and so on. Moreover, a few instances of CjVs are observed in the baby talk of these languages.

1. Introduction and Theoretical Background

Assamese is an Indo-Aryan language whereas Bodo is a Tibeto-Burman language. These two language communities are also different racially i.e. the former is Indo-Aryan whereas the latter is Mongoloid. Assamese is spoken by 1,53,11,351 whereas Bodo is spoken by 14,82,929 in India (*Language Data*, June 2018, p 6: Census of India 2011). Assamese is mostly spoken in Assam whereas Bodo is spoken in Assam, West Bengal, Meghalaya, Nagaland and Arunachal Pradesh states of India and south-eastern part of Nepal. Assamese is one of the fourteen Indian languages that are first recognised in 1950 as the scheduled languages of India in the list of languages in the “Schedule VIII” of *The Constitution of India*, whereas Bodo is one of the most recently (2004) included four languages in the list.

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These two languages have different sets of vowels and consonants. The Assamese phonemic inventory consists of eight vowels /i, e, ε, a, ɔ, o, ʊ, u/, nine diphthongs /iu, ei, eo, ai, ao, ɔi, ou, ui, ua/ and twenty-three consonants /p, p^h, b, b^h, t, t^h, d, d^h, k, k^h, g, g^h, m, n, ŋ, s, z, h, ħ, ɹ, l, j, w/. Whereas, the Bodo phonemic inventory consists of six vowels /i, e, a, ɔ, u, uɪ/ and sixteen consonants /p(p^h), b, t(t^h), d, k(k^h), g, m, n, ŋ, s, z, h, ɹ, l, j, w/. The vowels /ε, o, ʊ/ and consonants /ħ, ɹ/ are found in Assamese whereas the vowel /uɪ/ and consonant /ɹ/ are found in Bodo.

In grammar level, these languages differ from one another in many aspects such as case-definitive-classifier (CDC) marking, subject vs. agent marking, causative prefixation, adverbial suffixation, passivisation, non-finite vs progressive verb suffixation, and so on.

Conjunct verbs of the [nominal + light verb] pattern are commonly found in these languages. One of them can be either a noun or an adjective and a functional verb or verbaliser called “light verb” which hosts the noun/adjective to form the complex predicate. A light verb is used in a fixed combination with a noun or adjective, with a specific, limited meaning that doesn’t necessarily follow the verb’s usual sense. Jespersen (1965, Part-VI:117) coined the term *light verb* for the first time for the verbs like the V of English [V+NP] constructions as in *have a look*. In a conjunct verb, one of the lexical items acts as *nominal (noun or adjective) host* and other item acts as *light verb* (Jespersen 1965, Mohanan 1994, Butt 1995). The nominals participating in conjunct verbs are not restricted to any nominal types or categories; whereas, about ten light verbs are found in each of Assamese and Bodo. Light Verbs are generally readily identifiable as a separate syntactic class (Butt 2003). A restricted collocation of a nominal and a light verb is a rare co-occurrence of a noun or adjective with a light verb, which acts as a single semantic unit referring to a single action.

2. Objectives

Assamese and Bodo are two co-existing scheduled languages of India, belonging to two different language families, which require a special attention of a comparative study particularly on conjunct verbs of these languages that share very similar patterns and compositions of meanings. This study aims at finding out the commonly employed conjunct verbs in Assamese and Bodo; categorisation of the verbs; and analysing their patterns and compositions of meanings.

3. Methodology

This study is based on the Assamese and Bodo parallel corpora developed by the Department of Science & Technology, Ministry of Science and Technology, Government of India sponsored project “Resource Centre for Indian Language Technology Solutions (Phase-II: Assamese & Bodo), Department of Computer Science & Engineering, Indian Institute of Technology Guwahati, 2008 to 2011. The parallel corpora comprises texts from generic, tourism, and health domains and consist of around 0.21 million sentences. The corpora represents the standardised varieties of the languages.

Most part of the data have been elicited from the corpora and transcribed in the International Phonetic Alphabet. The Bodo data have been marked with tone marks as it is a tone language. The meanings of the data are analysed word by word and phrase by phrase. The limited meanings as well as the relevant grammatical functions of the light verbs are given in capital letters within single inverted commas.

The data are introspective as the authors are native speakers of Assamese and Bodo.

4. Data and Discussion

The area of conjunct verbs in Assamese and Bodo is very comprehensive. However, this study presents only a sizable amount of data that can well represent the conjunct verbs in these languages. In this section, the CjVs of [Nominal + LV] in Assamese and Bodo are categorised broadly and presented with their meanings. The meanings of the individual nominals and the cooccurring light verbs are also analysed. Beyond this section, in §5 through §12, restricted collocations of nominals and LVs, transitive and intransitive CjVs, idiomatic CjVs, multi-word CjVs, CjVs in baby talk, common LVs, grammatical categories of CjVs, comparison of Assamese and Bodo CjVs are discussed.

4.1 Assamese [Nominal + LV] CjVs

The term “nominal” encompasses ‘noun’ and ‘adjective’. Thus, the basic pattern-types of Assamese CjVs are- *Type-1*: [N + LV] and *Type-2*: [Adj + LV]. They are presented in *Table-1* and *Table-2*. The former type constitutes of the most CjVs of Assamese whereas the latter constitutes of a few CjVs.

4.1.1 [N + LV] CjVs

The most common structure of CjVs, particularly prevalent in South Asian languages, is a sequence of a noun followed by a light verb. The two elements combine to form a single semantic unit, with the noun providing the core meaning and the light verb contributing limited semantic value and grammatical information. The same type of CjVs is very productive in Assamese.

SN	N + LV Conjunct Verb	Individual Meanings
1.	[bat bul] ‘walk’	[bat] ‘road’; [bul] ‘WALK’
2.	[ɔswikaɪ kɔɪ] ‘refuse’	[ɔswikaɪ] ‘refusal’; [kɔɪ] ‘DO; MAKE’
3.	[ɔtjasaɪ kɔɪ] ‘torture’	[ɔtjasaɪ] ‘torture’; [kɔɪ] ‘DO; MAKE’
4.	[gak ^{hi} k ^{hi} ɪa] ‘milk (v)’	[gak ^{hi}] ‘milk’; [k ^{hi} ɪa] ‘DRAW’
6.	[gɔm pa] ‘know’	[gɔm] ‘clue; hint; knowledge’; [pa] ‘FIND; GET’
7.	[gɔndɔgol kɔɪ] ‘to make trouble; to cause a ruckus; to mess up; to create chaos; to get into a quarrel/fight’	[gɔndɔgol] ‘uproar; trouble; ruckus; chaos’; [kɔɪ] ‘DO; MAKE’
8.	[haɪ pa] ‘awake’	[haɪ] ‘conscious state of mind’; [pa] ‘FIND; GET’
9.	[hɔɪɔn kɔɪ] ‘multiple’	[hɔɪɔn] ‘multiplication’; [kɔɪ] ‘DO; MAKE’
10.	[kɔt ^h a pat] ‘talk’	[kɔt ^h a] ‘speech’; [pat] ‘SPEAK’
11.	[k ^h ap k ^h a] ‘fit (v)’	[k ^h ap] ‘fitting’; [k ^h a] ‘EAT; DRINK’
12.	[k ^h atɔni d ^h ɔɪ] ‘request (v)’	[k ^h atɔni] ‘request (v)’; [d ^h ɔɪ] ‘CATCH’
13.	[laz pa] ‘get insulted’	[laz] ‘shame’; [pa] ‘FIND; GET’
14.	[lɔg pa] ‘meet’	[lɔg] ‘friend’; [pa] ‘FIND; GET’
15.	[pɔɪasit kɔɪ] ‘expiate’	[pɔɪasit] ‘expiation; penance’; [kɔɪ] ‘DO; MAKE’

16.	[pɔtigja kɔr] ‘promise’	[pɔtigja] ‘promise’; [kɔr] ‘DO; MAKE’
17.	[ɔh kʰa] ‘do mating; have sexual intercourse’	[ɔh] ‘liquid’; [kʰa] ‘EAT; DRINK’
18.	[ɔŋ sa] ‘take pleasure by putting someone into danger’	[ɔŋ] ‘colour’; [sa] ‘SEE’
19.	[sɔl pa] ‘take advantage (v)’	[sɔl] ‘advantage’; [pa] ‘FIND; GET’
20.	[swikaɪ kɔɪ] ‘confess; admit’	[swikaɪ] ‘confession’; [kɔɪ] ‘DO; MAKE’
21.	[tʰeh lag] ‘pique (v)’	[tʰeh] ‘pique (n)’; [lag] ‘APPLY; EMPLOY’
22.	[um lɔ] ‘warm (v)’	[um] ‘warmth’; [lɔ] ‘TAKE’
23.	[zuɪ pɔɪ] ‘become satisfied’	[zuɪ] ‘peace’; [pɔɪ] ‘FALL’

Table-1: Assamese Conjunct Verbs of [N + LV] Pattern

4.1.2 [Adj + LV] CjVs

The second set of common CjVs in Assamese are of the structure [Adj + LV]. However, they are very few in number in comparison to [N + LV] CjVs. Compared to the nouns in [N + LV] CjVs, the adjectives in [Adj + LV] CjVs are non-restricted i.e. they can occur in isolation as free words.

S N	Adj + LV Conjunct Verb	Individual Meanings
1.	[beja pa] ‘dislike’	[beja] ‘bad’; [pa] ‘FIND; GET’
2.	[bʰal pa] ‘like; love’	[bʰal] ‘good’; [pa] ‘FIND; GET’
3.	[daŋɔɪ hɔ] ‘grow’	[daŋɔɪ] ‘big’; [hɔ] ‘BE(COME)’
4.	[dɔjalu hɔ] ‘be kind’	[dɔjalu] ‘kind’; [hɔ] ‘BE(COME)’
5.	[elah kɔɪ] ‘become lazy’	[elah] ‘lazy’; [kɔɪ] ‘BE(COME)’
6.	[hɔkɔt hɔ] ‘become fat’	[hɔkɔt] ‘fat’; [hɔ] ‘BE(COME)’
7.	[hugandʰɔ lɔ] ‘smell’	[hugandʰɔ] ‘fragrance’; [lɔ] ‘TAKE’
8.	[hukʰi hɔ] ‘be satisfied’	[hukʰi] ‘happy’; [hɔ] ‘BE(COME)’
9.	[sɔtuɪ hɔ] ‘become clever’	[sɔtuɪ] ‘clever’; [hɔ] ‘BE(COME)’
10.	[suti kɔɪ] ‘shorten’	[suti] ‘short’; [kɔɪ] ‘BE(COME)’

Table-2: Assamese Conjunct Verbs of [Adj + LV] Pattern

4.2 Bodo [Nominal + LV] CjVs

Bodo employs a considerable set of CjVs featuring about forty light verbs. Table-3 and Table-4 present Bodo CjVs of [N + LV] and [Adj + LV] patterns, respectively.

4.2.1 [N + LV] CjVs

The pattern [N + LV] constitutes the bulk part of the Bodo CjVs. The nominals participating in this pattern are from varied domains of lexemes.

SN	[N + LV] CjVs	Individual Meanings
1.	[âr zâ] ‘be(come) appropriate’	[âr] ‘appropriation’; [zâ] ‘EAT’

2.	[àraō kʰālām] ‘rumour (v)’	[àraō] ‘rumour (n)’; [kʰālām] ‘DO; MAKE’
3.	[bàn zà] ‘be appropriate’	[bàn] ‘thought’; [zà] ‘EAT’
4.	[òkʰá hà] ‘rain’	[òkʰá] ‘rain (n)’; [hà] ‘RAIN’
5.	[dèbūr nàŋ] ‘tangle; be complicated’	[dèbūr] ‘tangle’; [nàŋ] ‘EMPLOY’
6.	[dùgùn nàŋ] ‘(regard)’	[dùgùn] ‘digest’; [nàŋ] ‘EMPLOY’ (Always used in its negative form as [dùgùn nàŋà] ‘disregard’)
7.	[qāb qā] ‘dye’	[qāb] ‘colour’ [qā] ‘STEP’
8.	[haùs zà] ‘excite’	[haùs] ‘excitement’; [zà] ‘BE(COME)’
9.	[kʰáb zà] ‘fit’	[kʰáb] ‘fitting’; [zà] ‘EAT’
10.	[mègón mùkréb] ‘blink’	[mègón] ‘eye’; [mùkréb] ‘BLINK’ The collocation of [mègón] and [mùkréb] has literal meaning ‘blink’ and idiomatic meaning ‘ignore’ as well.
11.	[pʰàsī nàŋ] ‘hang oneself’	[pʰàsī] ‘hanging’; [nàŋ] ‘EMPLOY’
12.	[ràdai kʰà] ‘promise to marry’	[ràdai] ‘promise’; [kʰà] ‘TIE’
13.	[ràgā zúnŋ] ‘become angry’	[ràgā] ‘anger’; [zúnŋ] ‘LIGHT (v)’ Metaphorically, the word for ‘anger’ [ràgā] has been conceptualised as ‘fire’ and therefore it collocates with [zúnŋ] ‘light (v)’.
14.	[sòmaī lá] ‘make promise’	[sòmaī] ‘promise’; [lá] ‘TAKE’
15.	[sīmàn zà] ‘admit’	[sīmàn] ‘confession’; [zà] ‘BE(COME)’
16.	[sìrī mún] ‘awake’	[sìrī] ‘conscious state of mind’; [mún] ‘FIND; GET’
17.	[sùtʰā lá] ‘contrive’	[sùtʰā] ‘fallacy’; [lá] ‘TAKE’
18.	[suīmá súnŋ] ‘bark’	[suīmá] ‘dog’; [súnŋ] ‘BARK; RECEIVE’ ([súnŋ] while co-occurring as a light verb, with a noun to form conjunct verbs, the noun is either [suīmá] or [àlāsī] ‘guest’ as in [àlāsī súnŋ] ‘receive guest’.)
19.	[ùndàhà kʰālām] ‘repent’	[ùndàhà] ‘repentance’; [kʰālām] ‘DO; MAKE’
20.	[zīŋgà sī] ‘worry (v)’	[zīŋgà] ‘anxiety’; [sī] ‘GET WET; OPEN (MOUTH)’

Table-3: Bodo Conjunct Verbs of [N + LV] Pattern

4.2.2 [Adj + LV] CjVs

This category is constituted of a limited number of CjVs that consist of an adjective and a light verb.

S N	[Adj + LV] CjVs	Individual Meanings
1.	[qàzrī mún] ‘dislike’	[qàzrī] ‘bad’; [mún] ‘FIND; GET’
2.	[qùzùr zà] ‘endure; last’	[qùzùr] ‘lasting’; [zà] ‘BE(COME)’
3.	[kʰùsī zà] ‘be(come) happy’	[kʰùsī] ‘happy’; [zà] ‘BE(COME)’
4.	[lùrbàn zà] ‘become weak’	[lùrbàn] ‘weak’; [zà] ‘BE(COME)’
5.	[mùzāŋ mún] ‘like’	[mùzāŋ] ‘good’; [mún] ‘FIND; GET’

6.	[gùzān zà] ‘dissociate; separate; be off’	[gùzān] ‘far’; [zà] ‘BE(COME)’
7.	[gùbaō zà] ‘delay; pass a lot of time’	[gùbaō] ‘late’; [zà] ‘BE(COME)’
8.	[qèzēn zà] ‘be defeated’	[qèzēn] ‘loser’; [zà] ‘BE(COME)’
9.	[tʰòkʰó kʰàlām] ‘distinguish’	[tʰòkʰó] ‘distinguished; separate’; [kʰàlām] ‘DO’
10	[hùbūir zà] ‘loosen _{vi} ’	[hùbūir] ‘loose’; [zà] ‘BE(COME)’

Table-4: Bodo Conjunct Verbs of [Adj + LV] Pattern

5. Restricted Collocations of Nominals and Light Verbs

The light verbs are “restricted” in that they only collocate with specific nouns or adjectives. This study investigates the restricted collocations of nominals (nouns & adjectives) and light verbs in the conjunct verbs of both the patterns. The restrictions may be of two types i.e. either from the nominal or the light verb. Some nominals like [kʰab] ‘~FITNESS’ (Assamese) and [àgūr] ‘means’ (Bodo) can co-occur with the light verbs [kʰa] ‘eat’ and [mún] ‘FIND’ respectively in [kʰab kʰa] ‘fit (v)’ and [àgūr mún] ‘be rid of a burden or trouble’. On the other hand, light verbs like [ni.ɹa] ‘~REMOVE’ and [sír] ‘~STRAIN’ can co-occur with the nominals [bɔn] ‘weed (n)’ and [zuò] ‘rice beer; rice wine’ respectively in [bɔn ni.ɹa] ‘weed (v)’ and [zuò sír] ‘strain rice beer/wine’.

5.1 Restricted Nominals

It is observed that some nominals in Assamese and Bodo can combine with one or several light verbs to derive only one or several CjVs. In some case, those nominals are not co-occurring with any other words whereas they are not occurring in any environments in other cases. For example- the nominals [sɔ.ɹdi], [dìgūn], [lànpʰuītʰá], and [gògà] in Table-5, do not co-occur with any other light verb or word to form a correct string of words. On the other hand, the nominals- [bu.ɹ], [sàm], and [àwā] in Table-5, very rarely co-occur with several other words.

SN	Adj + LV Conjunct Verb	Individual Meanings	Explanation
Assamese			
1.	[bu.ɹ ma.ɹ] ‘immerse; dip’	[bu.ɹ] ‘PW’; [ma.ɹ] ‘HIT’	[bu.ɹ] co-occurs with [ma.ɹ] only to derive a CjV.
2.	[sɔ.ɹdi lag] ‘have a runny nose’	[sɔ.ɹdi] ‘PW’; [lag] ‘EMPLOY; APPLY’	[sɔ.ɹdi] co-occurs with [lag] only to derive a CjV.
Bodo			
1.	[dìgūn zà] ‘become trench foot’	[dìgūn] ‘value of water’; [zà] ‘EAT’	[dìgūn] co-occurs with [zà] to derive a CjV. [dìgūn] is derived from [dui] ‘water’ and [gùn] ‘value’.
2.	[sàm dàn] ‘weed’	[sàm] ‘grass’; [dàn] ‘REMOVE’	[sàm] co-occurs with [dàn] only to derive a CjV.
3.	[àwā baɪ] ‘nose bleed’	[àwā] ‘fresh’; [baɪ] ‘BREAK’	[àwā] co-occurs with [baɪ] only to derive a CjV.
4.	[lànpʰuītʰá hu̯làn] ‘dash’	[lànpʰuītʰá] ‘PW’; [hu̯làn] ‘GIVE-DST’	[lànpʰuītʰá] co-occurs with [hu̯làn] only to derive a CjV.

5.	[gə̀gà mún] ‘have a runny nose’	[gə̀gà] ‘PW’; [mún] ‘FIND; GET’	[gə̀gà] co-occurs with [mún] only to derive a CjV.
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Table-5: Restricted Nominals

5.2 Restricted Light Verbs

Some light verbs, as in the case of some nominals, are restricted to co-occur with only one or several nominals in CjVs. For example- the light verbs [ni.ɹua], [p^hēn], [gúr], and [p^húr] as in Table-6, do not co-occur with any other nominals or word to form correct verb phrases; whereas [pa.ɹ], [sùr], [bún], [zaò], [dù], [k^háy], and [mùzú] as in Table-6, can co-occur with several nominals to form other verb phrases.

SN	Adj + LV Conjunct Verb	Individual Meanings	Explanation
Assamese			
1.	[bən ni.ɹua] ‘weed’	[bən] ‘weed’; [ni.ɹua] ‘REMOVE’	[ni.ɹua] co-occurs with [bən] only to derive a CjV.
2.	[gali pa.ɹ] ‘scold’	[gali] ‘scold’; [pa.ɹ] ‘PW’	[pa.ɹ] co-occurs with [gali] only to derive a CjV.
Bodo			
1.	[àgán sùr] ‘step forward’; [hānzá sùr] ‘make a procession’	[àgán] ‘footstep’; [sùr] ‘PROCEED’	[sùr] can co-occur with either [àgán], [hānzá] ‘long breath’ as in [hānzá sùr] ‘take a long breath; long’ or [hānzá] ‘group’ as in [hānzá sùr] ‘make a procession’.
2.	[gùst ^h i p ^h ēn] ‘avoid; ignore’	[gùst ^h i] ‘lip’; [p ^h ēn] ‘PW’	[p ^h ēn] cooccurs with [gùst ^h i] only to derive a CjV.
3.	[ná bún] ‘catch fish with a hook’	[ná] ‘fish’; [bún] ‘PACKAGE; CATCH (fish with a fishing rod); sleep (idiomatic)’	[bún] co-occurs with [ná] only to derive a CjV. As a main verb, it can occur in the language for the word ‘package’.
4.	[ná gúr] ‘catch fish with a fishing basket’	[ná] ‘fish’; [gúr] ‘CATCH (fish with a fishing basket)’	[gúr] co-occurs with [ná] only to derive a CjV.
5.	[naò zaò] ‘sail’	[naò] ‘boat’; [zaò] ‘SAIL; WINNOW’	[zaò] co-occurs either with [naò], [mai] ‘paddy’ as in [mai zaò] ‘winnow’ or [maiṛṣṇ] ‘row rice’ as in [maiṛṣṇ zaò] ‘winnow’.
6.	[ùdui dù] ‘bloat’	[ùdui] ‘belly’; [dù] ‘SWELL’	[dù] co-occurs with [ùdui] only to derive a CjV.
7.	[k ^h ūgà p ^h úr] ‘introduce’	[k ^h ūgà] ‘mouth’; [p ^h úr] ‘PW’	[p ^h úr] co-occurs with [k ^h ūgà] only to derive a CjV.
8.	[gùsū k ^h áy] ‘remember’	[gùsū] ‘mind’; [k ^h áy] ‘ADOPT’	[gùsū] co-occurs with [k ^h áy] only to derive a CjV.
9.	[k ^h údui mùzú] ‘spit’	[k ^h údui] ‘saliva’; [mùzú] ‘SPIT’	[k ^h údui] co-occurs with [mùzú] only to derive a CjV.

Table-6: Restricted Light Verbs

6. Transitive and Intransitive Conjunct Verbs

Light verbs are categorised into transitive and intransitive. Intransitive CjVs are generated by combining nominals with intransitive LVs e.g. [hɔ] ‘be(come)’ as in [asan hɔ] ‘be(come) easy’. On the other hand, transitive CjVs are formed by combining nominals with transitive LVs e.g. [kər] ‘do’ as in [silai kər] ‘stitch’ (Fatma 2018: 221). Intransitive LVs in Assamese are [hɔ] ‘BE(COME)’, [lag] ‘EMPLOY; APPLY’, [ah] ‘COME’, etc. whereas transitive LVs are [kʰa] ‘EAT’, [kɔɪ] ‘DO; MAKE’, [lɔ] ‘TAKE’, [de] ‘GIVE’, [pa] ‘FIND; GET’, [dʰɔɪ] ‘HOLD; CATCH’, etc. Likewise, intransitive LVs in Bodo are [zà] ‘BE(COME)’, [nàŋ] ‘EMPLOY; APPLY’, etc. whereas, transitive LVs are [kʰàlām] ‘DO; MAKE’, [hù] ‘GIVE’, [hóm] ‘HOLD; CATCH’, [lá] ‘TAKE’, [zá] ‘EAT’, and [mún] ‘FIND; GET’, etc. However, sometimes, it is difficult to draw a clear line between the intransitive and transitive LVs in these languages. In both the languages, there are only several intransitive LVs and many transitive LVs. Some examples of intransitive and transitive CjVs are given in Table-7.

SN	Intransitive CjV	Transitive CjV
Assamese		
1.	[bʰal hɔ] ‘get well; be(come) good’	[bʰal kɔɪ] ‘cure; make well; repair’
2.	[hɔhɔz hɔ] ‘be(come) simple’	[hɔhɔz kɔɪ] ‘make simple’
Bodo		
1.	[lùbūr zà] ‘loosen _{vi} ’	[lùbūr kʰàlām] ‘loosen _{vt} ’
2.	[ùdàŋ zà] ‘be(come) free’	[ùdàŋ kʰàlām] ‘set free; release’
3.	[pʰànaò nàŋ] ‘be in trouble’	[pʰànaò pʰùnàŋ] ‘frame’

Table-7: Intransitive and Transitive Conjunct Verbs

7. Idiomatic Conjunct Verbs

The data discussed in §4.1 (Assamese) and §4.2 (Bodo) are literal conjunct verbs which have meanings that can be understood by combining the standard definitions of the individual words as their meanings are transparent and compositional. Idiomatic conjunct verbs, on the other hand, have figurative meanings that cannot be deduced from the individual words alone. The combinations of the individual words create new, non-obvious meanings that must be learned as single lexical units. This type of conjunct verbs is usually of [N + LV] pattern and they are parts of the most original forms of a language. They are very rich in expressing exact thoughts. Some examples with their meanings are given in Table-8.

SN	Adj + LV Conjunct Verb	Individual Meanings
Assamese		
1.	[aŋuli towa] ‘point (v)’	[aŋuli] ‘finger’; [towa] ‘POINT (?)’
2.	[dʰapɔli mel] ‘embark; set forth’	[dʰapɔli] ‘STRAW/REED WALL’; [mel] ‘SPREAD’
3.	[eheka de] ‘punish’	[eheka] ‘punish’; [de] ‘GIVE’
4.	[ga h̄aɪ] ‘escape narrowly’	[ga] ‘body’; [h̄aɪ] ‘BE DEFEATED’
5.	[kan kɔɪ] ‘pay attention’	[kan] ‘eat’; [kɔɪ] ‘DO’
6.	[hat dʰo] ‘break-up’	[hat] ‘hand’; [dʰo] ‘WASH’
7.	[hat h̄aɪ] ‘get rid of’	[hat] ‘hand’; [h̄aɪ] ‘BE DEFEATED’
8.	[hɔɪn kɔɪ] ‘elope’	[hɔɪn] ‘multiple’; [kɔɪ] ‘DO’
9.	[kɔpal pʰul] ‘become fortunate’	[kɔpal] ‘forehead’; [pʰul] ‘BLOSSOM’
10.	[matʰa maɪ] ‘try; think’	[matʰa] ‘head’; [maɪ] ‘HIT’
11.	[pʰandɔt pɔɪ] ‘be in trouble’	[pʰand-ɔt] ‘trap-LOC’; [pɔɪ] ‘FALL’

12.	[p ^h itahi maɪ] ‘rejoice’	[p ^h itahi] ‘arrogance’; [maɪ] ‘HIT’
13.	[taɲun de] ‘bit (v)’	[taɲun] ‘club’; [de] ‘GIVE’
14.	[təŋali band ^h] ‘determine’	[təŋali] ‘; [band ^h] ‘TIE’
15.	[pet pa] ‘understand someone’s mind’	[pet] ‘belly’; [pa] ‘FIND; GET’
Bodo		
1.	[àgān hù] ‘enter’	[àgān] ‘step’; [hù] ‘GIVE’
2.	[àk ^h ai dik ^h án] ‘surrender’	[àk ^h ai] ‘hand’; [dik ^h án] ‘LIFT’
3.	[àt ^h īŋ hōm] ‘beg’	[àt ^h īŋ] ‘foot’; [hōm] ‘HOLD’
4.	[bik ^h úŋ mán] ‘desire to be beaten’	[bik ^h úŋ] ‘back’; [mán] ‘ITCH’
5.	[gāŋ rá] ‘grow older’	[gāŋ] ‘feather’; [rá] ‘BECOME MATURE’
6.	[gònt ^h ōŋ há] ‘humiliate’	[gònt ^h ōŋ] ‘nose’; [há] ‘CUT’
7.	[gòŋ bai] ‘be defeated’	[gòŋ] ‘horn’; [bai] ‘BREAK’
8.	[gùdùná mán] ‘desire to die’	[gùdùná] ‘neck’; [mán] ‘ITCH’
9.	[gùsú súlái] ‘change one’s mind’	[gùsú] ‘mind’; [súlái] ‘CHANGE’
10.	[gùsú t ^h ú] ‘love’	[gùsú] ‘mind’; [t ^h ú] ‘SUFFICE’
11.	[gùsú zà] ‘wish (v)’	[gùsú] ‘mind’; [zà] ‘BE(COME)’
12.	[hàt ^h ai lúm] ‘(unsmile)’	[hàt ^h ai] ‘tooth’; [lúm] ‘FLOOD’. [hàt ^h ai lúm] is always used in its negative form [hàt ^h ai lúmà] ‘smile (v); cannot stop smiling’.
13.	[k ^h òrō p ^h úr] ‘become old’	[k ^h òrō] ‘head’; [p ^h úr] ‘BECOME WHITE’
14.	[k ^h i bùr] ‘be defeated; be(come) ashamed’	[k ^h i] ‘shit’; [bùr] ‘UNEARTH’
15.	[k ^h ùmā hù] ‘listen attentively’	[k ^h ùmā] ‘ear’; [hù] ‘GIVE’
16.	[k ^h ùmūn gòsōŋk ^h rāŋ] ‘have goosebumps’	[k ^h ùmūn] ‘body hair’; [gòsōŋk ^h rāŋ] ‘ERECT’
17.	[k ^h ùgā dām] ‘unnecessarily promise to do something’	[k ^h ùgā] ‘mouth’; [dām] ‘PLAY’
18.	[k ^h ūgà p ^h úr] ‘introduce’	[k ^h ūgà] ‘mouth’; [p ^h úr] ‘PW’
19.	[mègón k ^h éb] ‘like’	[mègón] ‘eye’; [k ^h éb] ‘PINCH’
20.	[mègón sã] ‘envy’	[mègón] ‘eye’; [sã] ‘PAIN’
21.	[mègón si] ‘be enough’	[mègón] ‘eye’; [si] ‘GET WET’
22.	[mùsuō t ^h ògài] ‘cheat’	[mùsuō] ‘ox’; [t ^h ògài] ‘CHEAT’
23.	[mùŋ sú] ‘make rumour’	[mùŋ] ‘name’; [sú] ‘PIERCE’
24.	[sàlái dùriút] ‘misspeak’	[sàlái] ‘tongue’; [dùriút] ‘DRIFT’
25.	[t ^h àlū mún] ‘be(come) tasty’	[t ^h àlū] ‘palate’; [mún] ‘FIND; GET’
26.	[t ^h ik ^h īnijaō daòk ^h ū] ‘reach its zenith’	[t ^h ik ^h īnijaō] ‘hair.whorl-LOC’; [daòk ^h ū] ‘MOVE-UP’
27.	[zìnàhàri k ^h àlām] ‘rape’	[zìnàhàri] ‘rape’; [k ^h àlām] ‘DO; MAKE’
28.	[ziù gâr] ‘die’	[ziù] ‘life’; [gâr] ‘EMIT’

Table-8: Idiomatic Conjunct Verbs in Assamese and Bodo

8. Multi-Word Conjunct Verbs

In this study, the term “multi-word conjunct verb” is used to refer to the conjunct verb of the syntactic structure- either [Noun + Adjective + Light Verb], [Adjective + Noun + Light Verb], [Noun + Adverb + Light Verb] or [Noun + Noun + Light Verb]. Other possible types of

multi-word conjunct verbs are [*Complex Nominal/Nominal~RED/ECHO + Light Verb*] and [*Adjective + Adverb + Light Verb*] which have not been observed in Assamese and Bodo in the present study. Usually, multi-word CjVs are of idiomatic nature.

SN	Adj + LV Conjunct Verb	Individual Meanings
Assamese		
1.	[<i>akahət saŋ pat</i>] ‘daydream’	[<i>akah-ət</i>] ‘sky-LOC’; [<i>saŋ</i>] ‘bed’; [<i>pat</i>] ‘PLACE’
2.	[<i>alai-at^hani kɔɪ</i>] ‘look down upon’	[<i>alai-at^hani</i>] ‘outcry’; [<i>kɔɪ</i>] ‘DO’
3.	[<i>idɔɪ zon hɔ</i>] ‘appear very rarely’	[<i>id-ɔɪ</i>] ‘Eid-GEN’; [<i>zon</i>] ‘moon’; [<i>hɔ</i>] ‘BE(COME)’
4.	[<i>kan hɔɪali maɪ</i>] ‘pretend not to hear’	[<i>kan</i>] ‘ear’; [<i>hɔɪali</i>] ‘lesser whistling duck’; [<i>maɪ</i>] ‘HIT’
5.	[<i>kan t^hijɔ kɔɪ</i>] ‘desire to listen’	[<i>kan</i>] ‘ear’; [<i>t^hijɔ</i>] ‘straight’; [<i>kɔɪ</i>] ‘DO’
6.	[<i>kɔpal mukɔli hɔ</i>] ‘become fortunate’	[<i>kɔpal</i>] ‘forehead’; [<i>mukɔli</i>] ‘open’; [<i>hɔ</i>] ‘BE(COME)’
7.	[<i>kɔpalət zui lag</i>] ‘face misfortune’	[<i>kɔpal-ət</i>] ‘forehead-LOC’; [<i>zui</i>] ‘fire’; [<i>lag</i>] ‘APPLY; EMPLOY’
8.	[<i>mɔɪɔnət hɔɪɔn de</i>] ‘try very hard; despise life; surrender to death’	[<i>mɔɪɔn-ət</i>] ‘death-LOC’; [<i>hɔɪɔn</i>] ‘refuge’; [<i>de</i>] ‘GIVE’
9.	[<i>sɔku daŋɔɪ kɔɪ</i>] ‘become angry; frighten’	[<i>sɔku</i>] ‘eye’; [<i>daŋɔɪ</i>] ‘big’; [<i>kɔɪ</i>] ‘MAKE’
10.	[<i>sɔku t^hɔɪ hɔ</i>] ‘surprise’	[<i>sɔku</i>] ‘eye’; [<i>t^hɔɪ</i>] ‘still’; [<i>hɔ</i>] ‘BE(COME)’
11.	[<i>uttɔm~mɔd^hɔm de</i>] ‘beat black and blue’	[<i>uttɔm~mɔd^hɔm</i>] ‘best~RED’; [<i>de</i>] ‘GIVE’
Bodo		
1.	[<i>bàlā gùdūŋ qá</i>] ‘marry’	[<i>bàlā</i>] ‘sand’; [<i>gùdūŋ</i>] ‘hot’; [<i>qá</i>] ‘STEP’
2.	[<i>bìk^hā k^hláb mún</i>] ‘turtle’	[<i>bìk^hā</i>] ‘chest’; [<i>k^hláb</i>] ‘shockingly’; [<i>mún</i>] ‘FIND; GET’
3.	[<i>daōsrì bàsā sélaɪ</i>] ‘quarrel’	[<i>daōsrì</i>] ‘Indian moina’; [<i>bàsā</i>] ‘nest’; [<i>sé-laɪ</i>] ‘SNATCH-REC’
4.	[<i>gòŋgàr k^hòrɔ nàŋ</i>] ‘droop (stem and leaves)’	[<i>gòŋgàr</i>] ‘Bhutia’; [<i>k^hòrɔ</i>] ‘head’; [<i>nàŋ</i>] ‘EMPLOY; APPLY’
5.	[<i>k^hòrɔ gùdún zà</i>] ‘get stressed’	[<i>k^hòrɔ</i>] ‘head’; [<i>gùdún</i>] ‘hot’; [<i>zà</i>] ‘BE(COME)’
6.	[<i>k^hòrɔwao èmp^huó nàŋ</i>] ‘be(come) unstable’	[<i>k^hòrɔ-wao</i>] ‘head-LOC’; [<i>èmp^huó</i>] ‘insect’; [<i>nàŋ</i>] ‘APPLY; EMPLOY’
7.	[<i>k^hĩt^hũzũŋ hāŋ lā</i>] ‘sleep deeply’	[<i>k^hĩt^hũ-zũŋ</i>] ‘anus-INS’; [<i>hāŋ</i>] ‘breath’; [<i>lā</i>] ‘TAKE’

Table-9: Multi-Word Conjunct Verbs in Assamese and Bodo

9. Conjunct Verbs in Baby Talk

Baby talk which is also known as child-directed speech (CDS), infant-directed speech (IDS), or parentese, is a specialised and highly affectionate register used by caregivers and children to interact with one another. It features melodic sing-song intonation, high-pitched, exaggerated vowels (e.g. long vowels in Bodo such as /u:/ and /ɔ:/ as in Table-9), slower speed, simplified grammar, and onomatopoeic words to boost infants’ attention and aid in language acquisition. Though simplified words and sentences are used to talk to kids, it is interesting to see the use of conjunct verbs in baby talk in the Assamese and Bodo languages. Some of the CjVs in baby talk are exemplified in Table-10.

SN	CjV	Individual Meanings
Assamese		
1.	[hamu de]/[tupu za] ‘sleep’	[hamu] ‘PW’; [de] ‘GIVE’/[tupu] ~ [tupɔni] ‘sleep’; [za] ‘GO’
2.	[gaga kɔɪ]/[zɔ~zɔ kɔɪ] ‘bath’	[gaga] ‘PW’/[zɔ~zɔ] ‘ONO for bath’; [kɔɪ] ‘DO’
3.	[p ^h up ^h u za] ‘go for an outing’	[p ^h up ^h u] ‘ONO for outing’; [za] ‘GO’
4.	[nini lag] ‘fall asleep’	[nini] ‘sleep’; [lag] ‘EMPLOY; APPLY’
5.	[ɔk kɔɪ] ‘spit out’	[ɔk] ‘ONO for spit out’; [kɔɪ] ‘DO’
Bodo		
1.	[dū: hù:n] ‘sleep’	[dū:] ‘ONO for sleep’; [hù:n] ‘SAY’
2.	[haõp̣p̣ā hù:n] ‘bath’	[haõp̣p̣ā] ‘ONO for bath’; [hù:n] ‘SAY’
3.	[ām hù:n] ‘eat’	[ām] ‘ONO for eat’; [hù:n] ‘SAY’
4.	[ũtsá hù:n] ‘stand up’	[ũtsá] ‘ONO for the action of standing up’; [hù:n] ‘SAY’
5.	[gɔ: hù:n] ‘drink’	[gɔ:] ‘water’; [hù:n] ‘SAY’

Table-10: CjVs in the Baby Talk in Assamese and Bodo

A variety of light verbs are used in the CjVs of the baby talk in Assamese whereas [hù:n] is exclusively used as the light verb in the CjVs of the baby talk in Bodo.

10. Common Light Verbs

Although Assamese and Bodo are from two different ancestral families, they share some similar light verbs semantically. The common light verbs in Assamese are [de], [d^hɔɪ], [hɔ], [kɔɪ], [k^ha], [lag], [lɔ], and [pa]. Interestingly, their counterparts are found to be common in Bodo, namely- [hù], [hóm], [zà], [k^hàlām], [zá], [nàŋ], [lá], and [mún]. The meanings and examples of these light verbs are illustrated in Table-11.

SN	Assamese LV	Bodo LV
1.	[de] ‘GIVE’ as in [kan de] ‘listen carefully’	[hù] ‘GIVE’ as in [k ^h ù:mā hù] ‘listen carefully’
2.	[d ^h ɔɪ] ‘CATCH’ as in [ag d ^h ɔɪ] ‘start; begin’	[hóm] ‘CATCH’ as in [gùdī hóm] ‘start; begin’
3.	[hɔ] ‘BE(COME)’ as in [sinaki hɔ] ‘get introduced’	[zà] ‘BE(COME)’ as in [sinaĩ ^h í zà] ‘get introduced’
4.	[kɔɪ] ‘DO; MAKE’ as in [bija kɔɪ] ‘become married’	[k ^h àlām] ‘DO; MAKE’ as in [hàbā zà] ‘become married’
5.	[k ^h a] ‘EAT; DRINK’ as in [mamɔ k ^h a] ‘corrode’	[zá] ‘EAT’ as in [màrām zá] ‘corrode’
6.	[lag] ‘APPLY; EMPLOY’ as in [b ^h al lag] ‘like’	[nàŋ] ‘APPLY; EMPLOY’ as in [mùzāŋ nàŋ] ‘like’
7.	[lɔ] ‘TAKE’ as in [pɔti ^h od ^h lɔ] ‘take revenge’	[lá] ‘TAKE’ as in [k ^h ít ^h ér lá] ‘take revenge’
8.	[pa] ‘FIND; GET’ as in [lɔg pa] ‘meet’	[mún] ‘FIND; GET’ as in [lùgũ mún] ‘meet’

Table-11: Similar LVs in Assamese and Bodo

As observed in Table-11, the common light verbs in Assamese and Bodo co-occur with the semantically same nominals of these languages, giving the same meanings.

The common LVs in Assamese include [ut^h] ‘CLIMB’ as in [k^hɔŋ ut^h] ‘become angry’, [pɔɪ] ‘FALL’ as in [bipɔdɔt pɔɪ] ‘be in trouble’ and [maɪ] ‘HIT’ as in [hat maɪ] ‘masturbate (of

male)’. On the other hand, the LVs in the idiomatic CjVs in Assamese and Bodo are beyond the common LVs employed in the non-idiomatic CjVs. In this category, Bodo exhibits a wider range of LVs.

11. Grammatical Categories of Conjunct Verbs

Inherent grammatical categories are attributed to some conjunct verbs such as [-t] ‘LOC’ in [sɔku-t] ‘eye-LOC’ in [sɔkut lag] ‘choose; like’ (Assamese) and [-ao] ‘LOC’ & [p^hu-] ‘CAUS’ in [p^hàn-aò] ‘trap-LOC’ & [p^hù-nàŋ] ‘CAUS-EMPLOY/APPLY’ in [p^hànaò p^hùnàŋ] ‘frame’ (Bodo). In addition to that, the grammatical categories of verb are employed with conjunct verbs. The morphological positioning of the grammatical categories with the conjunct verbs is discussed in §11.1 through §11.7.

11.1 Tense

Tense is a grammatical category, usually on verbs, that places the action of the verbs in the different states or points of time viz. past, present, and future relative to the moment of speaking. However, in Assamese and Bodo morphologies, verbs are overtly marked with past and future only.

11.1.1 Past Tense: [-il] and [-mun]

Past tense is marked with [-il] in Assamese and [-mun] in Bodo as in (1a-b). As in simple verbs, they are preceded by aspect markers while co-occurring with the light verbs of CjVs.

- (1a) *mɔi* *kali* *guwahati-t* *bɔzaɪ* *kɔɪ-is-il-o*
 1 yesterday PN-LOC market DO-PFV-PST-3
 ‘I went shopping in Guwahati yesterday.’ (Assamese)
- (1b) *àŋ-nī* *ònzālī-já* *gāb-naī-jaō* *àŋ* *zùbūit* *dùk^hū* *mún-duŋ-mún*
 1-GEN beloved-NOM weep-NOML-LOC 1 very sorrow FIND-PFV-PST
 ‘I was so hurt when my beloved wept.’ (Bodo)

11.1.2 Future Tense: [-b/-m] and [-gun]

Future tense is a grammatical feature of a verb that indicates an action or state of being has not yet occurred but is expected to happen in the future, typically relative to the moment of speaking as in (2a-e). The future tense suffix in Assamese [-b] has its phonologically conditioned allomorphs viz. [-b] as in (2a) and [-ib] as in (2b). Again, the other morphologically conditioned allomorph [-m] which co-occurs with 1st personal subject, has phonologically conditioned allomorphs [-m] as in (2c) and [-im] as in (2d).

- (2a) *mɔi* *nɔ-gɔ(zə)-le* *teĩ* *beja* *pa-b-ɔ*
 1 NEG-go-SUBJ 3.HON bad FIND-FUT-3
 ‘S/he will feel bad if I do not go.’ (Assamese)
- (2b) *tai* *kaikɔi* *tai-ɪ* *deuta-k-ɔk* *lɔg* *d^hɔɪ-ib-ɔ*
 3.F tomorrow 3.F father-3-ACC friend CATCH-FUT-3
 ‘She will meet her father tomorrow.’ (Assamese)
- (2c) *mɔi* *apona-k* *kailɔi-ɪ* *pɔɪa* *b^hal* *pa-m*

- 1 2.HON-ACC tomorrow-GEN ABL(from) **good** **FIND-FUT.1**
 ‘I will love you from tomorrow.’ (Assamese)
- (2d) *mɔi* *azi* *hɔndʰija* *ma-a* *lɔg-ɔt*
 1 today evening my.mother-GEN FRIEND-LOC(COM)
- kɔtʰa* *pat-im*
speech **SPEAK-FUT.1**
 ‘I will speak to my mother today evening.’ (Assamese)
- (2e) *mùzàŋ* *mànsī-kʰuō* *àŋ* *ðraĩbiũ* *hèpāzáb* *hù-gún*
 good person-ACC 1 always help GIVE-FUT
 ‘I will always help good people.’ (Bodo)

11.2 Aspect

Aspect is a grammatical category, usually on verbs, that indicates the duration, completion, or repetition of the speaker’s action over time. It features ongoing (progressive; perfective), finished (perfect), and habitual (simple) actions of verbs. Morphologically, this feature co-occurs with the main verb whereas, syntactically, auxiliary verbs like [*as*] and [*tʰak*] in Assamese and [*dɔŋ*] and [*tʰá*] in Bodo. Aspect markers precede tense and mood suffixes.

11.2.1 Perfect Aspect: [-l] and [-bai]

It indicates the completion of the action of verbs. The Assamese perfect aspect marker is [-l] which has its phonologically conditioned allomorph [-il] that co-occurs with verb bases ending with a consonant. Therefore, it seems that the past tense and the perfect aspect markers are in syncretism. However, this allomorph has been most often mistaken to be the identical past tense marker [-il]. The difference between the past tense suffix [-il] and the perfect aspect suffix [-il] is that the former is always preceded by the perfective aspect marker [-is] whereas the later is not preceded by any aspect marker; it occurs immediately with the verb stem as in (3a-b). On the other hand, Bodo has a distinct perfect aspect marker [-bai] which also immediately occurs with the verb base as in (3c).

- (3a) *mo-a* *lɔ-a-to* *ei.mat.ɔ* *ha-a* *pa-le*
 1.GEN SON-DEF just.now consciousness FIND-PRF
 ‘My boy has woken up just now.’ (Assamese)
- (3b) *mukʰjɔ* *mɔnt.ɔi-je* *pɔdʰan* *mɔnt.ɔi-k* *lɔg* *kɔ-ile*
 chief minister-ERG prime minister-ACC friend DO-PRF-3
 ‘The Chief Minister has met the Prime Minister.’ (Assamese)
- (3c) *aĩ-jā* *sirĩ* *mūn-baĩ*
 my.mother-NOM consciousness FIND-PRF
 ‘My mother has come home.’ (Bodo)

11.2.2 Perfective Aspect: [-is] and [-duŋ]

This kind of aspect views an action as a complete, single whole, focusing on its endpoint or result. Usually, the action indicated by this kind of aspect starts at an earlier point of time, which is going to be ended at a recent following point of time as in (4a-b).

- (4a) *deuta-i* *mok* *hɔ.ɯ-t-e* *bɔhut* *b^hal*
 my.mother-ERG 1.ACC childhood-LOC-EMPH very good
upɔdeh *d(de)-is-il*
 advice GIVE-PFV-PST
 ‘My father advised me very well during my childhood.’ (Assamese)
- (4b) *zùŋ* *ʃr* *sai-duŋ*
 1.PL fire SELECT-PFV
 ‘We are sitting by the fire.’ (Bodo)

11.2.3 Imperfect Aspect

It is a grammatical category indicating that an action, event or state is viewed from within, as ongoing, habitual, or incomplete, rather than as a finished whole.

11.2.3.1 Habitual Aspect: [-i/e/a/ɔ/o] and [-u/ju]

It is an imperfective aspect that indicates an action or state occurring regularly, customarily, or habitually over an extended period, rather than as a single, isolated event as in (5a-g).

- (5a) *hɯ.ɯzɔ* *pub* *p^hale* *udɔi* *hɔ-i*
 sun eat side rise BE(COME)-HAB.3
 ‘The sun rises in the east.’ (Assamese)
- (5b) *k^hu.ɯ-i* *e-k^hɔn* *bidjalɔj-ɔt* *kam* *kɔɯ-e*
 uncle(father’s.younger.brother)-ERG one-CLF school-LOC work DO-HAB.3
 ‘Uncle works in a school.’ (Assamese)
- (5c) *mɔi* *zan-o* *tumi* *pɯ.ɔtidin-e* *bjam* *kɔɯ-a*
 1.SG know-HAB 2.FAM everyday-LOC exercise DO-HAB.2.FAM
 ‘I know you exercise everyday.’ (Assamese)
- (5d) *mɔi* *zan-o* *tɔi* *pɯ.ɔtidin-e* *bjam* *kɔɯ-ɔ*
 1.SG know-HAB 2.INFL everyday-LOC exercise DO-HAB.2
 ‘I know you exercise everyday.’ (Assamese)
- (5e) *ami* *hɔdai* *ɯatipuwa* *ut^h-i* *bjam* *kɔɯ-o*
 1.PL always morning get.up-NF exercise DO-HAB.1
 ‘We exercise every morning after getting up.’ (Assamese)
- (5f) *àŋ* *dùgà* *mànsĩk^huō* *gàzrĩ* *múŋ-u*
 1 proud person-ACC bad GET-HAB
 ‘I dislike haughty people.’ (Bodo)
- (5g) *bɔĩ-hā-bū* *rɔŋzá-nú* *gu̯usù* *zà-jù*

all-POSS-INC enjoy-INF **mind** **BE(COME)-HAB**
 ‘Everybody wants to enjoy.’ (Bodo)

11.2.3.2 Progressive Aspect: [-i as/t^hak] and [-gasinu d̤əŋ/t^há]

In Assamese, the progressive or continuous aspect has been expressed through the use of complementiser particle with the light verb of CjV followed by the auxiliary verb [as/t^hak] as in (6a-b). In Bodo, there is a specialised progressive aspect suffix [-gasinu] that co-occurs with the light verb of CjV which is followed by the auxiliary verb [d̤əŋ/t^há] as in (6c-d).

- (6a) *dada-i* *pət^hai-ət* *kam* *kɔɔ-i* *as-e*
 my.elder.brother-ERG field-LOC work DO-CP AUX-3
 ‘My elder brother is working in the field.’ (Assamese)
- (6b) *mɔɔ* *tai-lɔi* *mən-ət* *pɔɔ-i* *t^hak-e*
 1.GEN 3-ILL mind-LOC FALL-CP AUX-3
 ‘I keep remembering her.’ (Assamese)
- (6c) *gət^hɔsā-p^hūr-ā* *dā-sīm-bū* *p^hək^hrī-jaō* *naō* *zaō-gāsīnū* *d̤əŋ*
 kid-PL-NOM now-ILL-INC pond-LOC boat SAIL-PROG AUX
 ‘The kids are playing in the pond still now.’ (Bodo)
- (6d) *àŋ* *nūŋ-k^huō* *ərai* *gūsū* *k^hàŋ-gàsīnū* *t^há-jū*
 1 2-ACC always mind ADOPT-PROG AUX-HAB
 ‘I always remember you.’ (Bodo)

11.3 Telicity

It Bodo, telicity is the aspectual boundedness property of verbs that indicates the presence of the goal or the climatic point of the action of the verb which is known as culmination and end point known as termination of an action or event (Brahma 2024: 203-204). This property does not appear as a grammatical category of verbs in Assamese.

11.3.1 Culmination [-p^hu]

The culmination point of the action of a verb is the maximum height in the cumulative effect of the action of that verb as in (7).

- (7) *àŋ* *suōhuī-blā* *bī-jū* *k^hàmànt* *maō-p^hú-duŋ-mún*
 1 reach-SUBJ s/he-NOM work DO-CULM-PFV-PST
 ‘When I reached, he was busy working.’ (Bodo)

11.3.2 Termination [-k^haŋ]

The termination point of the action of a verb is the point of completion of the action of the verb as (8).

- (8) *zūŋ* *nō* *mūnp^huī-blā* *ək^hā* *hà-k^hāŋ-baī-mūn*
 1.PL house reach-SUBJ rain REAP-TERM-PRF-PST
 ‘It had stopped (completed) raining when we reached home.’ (Bodo)

11.4 Mood

“Mood is a feature of the verb that reflects the speaker’s attitude toward what s/he is saying. Of course, in all languages there are lots of ways that a speaker can reflect her/his attitude toward what s/he is saying: through intonation, by overtly commenting upon what s/he says, by raising her/his voice or swinging her/his fist...”

(McShane et al. 2004: 83).

This study looks at mood as realised with the help of some specialised linguistic elements either a morpheme or a word attached to main verbs. However, only a few such elements are discussed here to see their positions in CjVs.

11.4.1 Subjunctive Mood: [-(*i*)*le* ... -heten] and [-*bla* ... -guo]

Subjunctive mood has its uses as co-relatives in Assamese in Bodo; one with the conditional clause or protasis and the other with the apodosis of a complex sentence.

In Assamese, the past tense marker [-*il*] always precedes the subjunctive mood marker [-*hēten*] whereas, its counterpart in Bodo [-*m^hun*] always follows the subjunctive mood marker [-*guo*] co-occurring with the main verb of the apodosis as in (9a-b).

- (9a) *teũ-lok-e* *mən* *kɔɔ-ile* *mɔi* *bɔstu-bilak* *b^hag* *kɔɔ-il-u-hēten*
 3.HON-PL-ERG mind DO-SUBJ 1 goods-PL share DO-PST-1-SUBJCOR
 ‘I would distribute the goods if they paid attention.’ (Assamese)

- (9b) *dĩnuĩ* *ɔk^há* *hà-jà-mùnn-blà* *àŋ* *nùŋ-k^huō* *lùgù* *həm-guó-mún*
 today rain REAP-NEG-PST-SUBJ 1 2-ACC friend CATCH-SUBJCOR-PST
 ‘If it hadn't rained today, I would have met you.’ (Bodo)

11.4.2 Inferential Mood: [*bole*] and [-*nu*]

The inferential or renarrative mood reports a non-witnessed event which was not directly observed or inferred by the speaker. The inferential mood is expressed with the use of the postpositional word [*bole*] in Assamese; whereas, in Bodo, it is expressed with the verbal suffix [-*nu*] that follows aspect and tense suffixes as in (10a-b).

- (10a) *tai* *pehiyek* *ɔh(ah)-a-lɔi* *bat* *sa-is-il* *bole*
 3.F father’s.sister.3 come-NOML-ILL way SEE-PFV-PST INFR
 ‘She waited until her aunt’s arrival (renarrated).’ (Assamese)

- (10b) *bĩt^háŋ-ā* *muĩjā* *nũŋt^háŋ-k^huó* *lāmā* *naĩ-dũŋ-mùnn-nu*
 3.HON-NOM yesterday 2.HON-ACC way SEE-PFV-PST-INFR
 ‘S/he waited for you yesterday (renarrated).’ (Bodo)

11.4.3 Dubitative Mood: [*sage/hɔbɔla*] and [-*gun*] / [*k^hùmā*]

The dubitative mood expresses the speaker’s doubt or uncertainty about the event denoted by the verb. In Assamese, it is expressed with the postpositional word [*sage/hɔbɔla*]; whereas, in Bodo, it is expressed by using either the verbal terminal suffix [-*gun*] or a postpositional word [*k^hùmā*] as in (11a-c).

- (11a) *azi* *bɔɔhun* *de(d)-ib-ɔ* *sage/hɔbɔla*
 today rain GIVE-FUT-3 DUB
 ‘It may rain today.’ (Assamese)

- (11b) *gùmmuī-jā* *dìnuuī* *bèlāsī-jaó* *zùñ-ñaò*
 brother-in-law-NOM today afternoon-LOC 1.PL-GEN.LOC
àlāsí *zá-p^huī-guñ-guñ*
 guest EAT-PRX-FUT-DUB
 ‘My brother-in-law may come to visit us this afternoon.’ (Bodo)
- (11c) *gùmmuī-jā* *dìnuuī* *bèlāsī-jaó* *zùñ-ñaò*
 brother-in-law-NOM today afternoon-LOC 1.PL-GEN.LOC
àlāsí *zá-p^huī-guñ* *k^hùmā*
 guest EAT-PRX-FUT DUB
 ‘My brother-in-law may come to visit us this afternoon.’ (Bodo)

11.4.4 Imperative Mood: [-son; -dei] and [-du; -nai; -lai]

In Assamese and Bodo imperative clauses, the main verbs retain their base forms. However, to indicate some different degrees of politeness and purposes of the actions of the verbs, sometimes, different suffix particles expressing different kinds of imperative mood are used as in (12a-b). These suffixes are optional; because, imperativeness is basically expressed through certain kind of intonation.

- (12a) *kam-to* *azi* *heh* *kɔɔ-ib-a-son/dei*
 work-DEF today finish DO-FUT-2.FAM-IMP(polite)
 ‘Please finish the work today.’ (Assamese)
- (12b) *bī-k^huō* *hèp^hāzáb* *huì-duì/nāī/lāī*
 3-ACC help GIVE-IMP(polite)
 ‘Please help her/him.’ (Bodo)

11.4.5 Optative Mood: [-ok] and [-t^huñ]

The optative mood expresses wishes, hopes, prayers, or desires, often indicating something remote from reality, distinct from the more common indicative (fact) or imperative (command) moods as in (13a-b).

- (13a) *hi* *taɔ* *hɔpon* *puɔn-ɔɔ* *dihe* *ag* *baɔh-ɔk*
 3M 3M.GEN dream realisation-GEN towards front PROCEED-OPT
 ‘May he progress towards the realisation of his dream!’ (Assamese)
- (13b) *ànàn.gòsai-jā* *bɔì-k^huō-bū* *bùr* *sārsrī-t^huñ*
 almighty-NOM all-ACC-INC blessing ASPERSE-OPT
 ‘May the Almighty bless us all!’ (Bodo)

11.4.6 Interrogative Mood: [-ne] and [-na/-da]

The interrogative mood is used specifically for asking questions, seeking information, or making inquiries, contrasting with stating facts (indicative) or giving commands (imperative). Usually, the interrogative mood in Assamese and Bodo do not involve word order changes.

- (14a) *tumi* *tumaɔ* *zjest^hɔ-xɔkɔl-ɔk* *hɔnman* *kɔɔ-a-ne*
 2.FAM 2.GEN senior-PL-ACC respect DO-2.FAM-INT

‘Do you respect your seniors?’ (Assamese)

- (14b) *nùŋ-sùr* *gùzāŋ* *bùt^hũr-aō* *ōr* *sai-jù-nā/dā*
 2-PL cold season-LOC fire ASSESS-HAB-INT
 ‘Do you huddle around the fire in Winter?’ (Bodo)

11.4.7 Precative Mood: [-zen]

It is a grammatical mood that expresses a prayer or earnest request, often a polite plea for an event to happen. Assamese and Bodo share the same precative mood marker [-zen] as in (15a-b).

- (15a) *ami* *apona(aponi)-k* *ɔnu.ɔd^h* *kɔɔ-is-o* *ɔnug.ɔh* *kɔɔ-i*
 1.PL 2.HON-ACC request DO-PFV-1 favour DO-NF
aponi *amak* *g^hɔɔ-ɔlɔi* *za-bɔlɔi* *ɔnumɔti* *di(de)-je-zen*
 2.HON 1.PL.ACC house-ILA go-INF permission GIVE-3-PREC
 ‘We requested you to kindly permit us to go home.’ (Assamese)
- (15b) *àŋ* *àrɔz* *gāb-ũ* *nùŋt^hāŋ-ā* *àŋ-k^huō* *nīmāhā* *hù-jù-zèn*
 1 prayer CRY-HAB 2.HON-NOM 1-ACC pardon GIVE-HAB-PREC
 ‘I pray to you so that you forgive me.’ (Bodo)

11.5 Passivisation

Assamese employs periphrastic passive construction whereas Bodo employs morphological passive construction. The usual pattern of Assamese passive construction is [A-GEN *dwa.ɔa* P-(CLF) V-NOML *hɔ-ASP-TNS-MD*] whereas that of Bodo is [P-NOM A-INS V-*za*-ASP-TNS-MD] as in (16a-b).

- (16a) *sɔmɔk-ɔɔ* *dwa.ɔa* *kam* *kɔɔ-a* *hɔ-is-il-ne*
 labourer-GEN by work DO-NOML BE-PFV-PST-INT
 ‘Is the work done by the labourer?’ (Assamese)
- (16b) *hìnzaò.gùdàn-à* *huōwà.gùdàn-zùŋ* *hùgù* *hɔm-zá-dùŋ-mún-ná*
 bride-NOM groom-INS friend CATCH-PASS-PFV-PST-INT
 ‘Was the bride met by the groom?’ (Bodo)

11.6 Causativisation

Simple causative verbs in Assamese are derived through the suffixation of [-wa] as in (17a); whereas, those in Bodo are derived with either the prefixation of [*sV-*, *p^hV-*, *bV-*] or the suffixation of [-*hu*]. However, the uses of [*sV-*] and [*p^hV-*] are only found in case of CjVs as there are only light verbs that can take these two causative prefixes as in (17b-c). On the other hand, the Bodo causative suffix [-*hu*] can derive causative counterparts of any verbs as in (17d).

- (17a) *maut-e* *puwa-t-e* *hati* *powali-to-k* *ga* *d^hu-wa-le*
 mahout-ERG morning-LOC-FOC elephant young-DEF-ACC body WASH-CAUS-PST
 ‘The mahout made the calf bath.’ (Assamese)
- (17b) *nún* *àŋ-k^huō* *zùbút* *dùk^hù* *p^hù-nàŋ-baī*
 2 1-ACC very sorrow CAUS-APPLY-PRF

‘You have hurt me so much.’

(Bodo)

- (17c) *bàrà dùgà mànsī-kʰuò gòŋ sī-pʰaí(baí)-nàŋ.guò*
 more proud person-ACC horn CAUS-BREAK-MOD.ADV
 ‘Excessively proud people should be defeated.’ (Bodo)

- (17d) *mùnbrénaī ùŋkʰám-a àŋ-kʰuò ùduí dù-huì-dùŋ-mùn*
 overcooked cooked.rice-NOM 1-ACC belly SWELL-CAUS-PFV-PST
 ‘The overcooked rice made my belly bloat.’ (Bodo)

Interestingly, a few CjVs in Bodo are found to be causative by nature, non-causative counterparts of which do not occur in the language. For example- [*àkʰaí sùmaò*] ‘work’ derived from [*àkʰaí*] ‘hand’ and [*sù-maò*] ‘CAUS-MOVE’, [*duí gāŋhuū*] ‘defeat’ derived from [*duí*] ‘water’ and [*gāŋ-huū*] ‘BE(COME).THIRSTY-CAUS’, etc.

11.7 Deixis

Deixis is a grammatical category of verbs that devises and forms motion verbs in Bodo. The deictic markers that indicate the different spatial features viz. *proximal* [*-pʰui/bu*], *distal* [*-laŋ/huī*], *upward* [*-kʰu*], *downward* [*-kʰlai*], *inward* [*-sɔn*], and *outward* [*-ɔn*] directions derive motion verbs as in (18a-f).

- (18a) *dīnuī zùŋ làguì-aò ðkʰā hà-pʰuì-jà-kʰuì*
 today 1.PL village-LOC rain REAR-PRX-NEG-PRF.NEG
 ‘Rain has not come to our village today. (Lit.)’ (Bodo)
- (18b) *àbɔ-wá aī-kʰuó hàtʰaí-jaó lùguì hóm-huī-baí*
 my.elder.sister-NOM my.mother-ACC market-LOC friend CATCH-DST-PRF
 ‘My elder sister went and met my mother at the market.’ (Bodo)
- (18c) *sikʰlājā sùr bù-kʰuì-nànuì rùzāb-dùŋ-mùn*
 girl-NOM tune PULL-UP-NF sing-PFV-PST
 ‘The girl sang in high note.’ (Bodo)
- (18d) *zèŋnā~zèŋsí zùb-srāŋ-naí-ní ùn-aò-sū bī-hā*
 problem~RED end-completely-NOML-GEN after-LOC-EMPH 3-POSS
gùsù sū-gʰlāi(kʰlai)-dùŋ-mùn
 mind BECOME.COLD-DWN-PFV-PST
 ‘S/he felt relaxed only after the solution to the problems.’ (Bodo)
- (18e) *bī-jū màlaī-nī isīŋ-aó-nú àgān huì-sɔn-dùŋmùn*
 3-NOM other-GEN kitchen-LOC-FOC step GIVE-IN-PFV-PST
 ‘S/he entered (inside) the other’s kitchen.’ (Bodo)
- (18f) *rùwātʰí-já mùsuoò-ní àhār.bàsā-nīpʰraī gaikʰér sēr-ɔn-baí*
 female.maid-NOM OX-GEN udder-ABL milk DRAW-OUT-PRF
 ‘The maid has gotten milk out of the udder of the cow. (Lit.)’ (Bodo)

11.7 Negation

Negation in Assamese has been derived through prefixation of [nV-] with the light verbs in CjVs; whereas, Bodo employs- (1) the prefix [da-] with the light verbs or nominals in some cases to negate CjVs in imperative and optative clauses, and (2) the suffix [-a] with the light verbs in CjVs in non-imperative and non-optative clauses as in (19a-d).

- (19a) *g^hɔɔ-k^hɔn-ɔɔ* *kaɔ-o* *hɔite* *taɔ* *kɔt^ha* *k^hab* *na-k^hai*
house-CLF-GEN who.GEN-INC COM 3.GEN matter **match** **NEG-EAT**
'His words do not match with those of his family member.' (Assamese)

- (19b) *anan.gɔsai-ja* *rao-k^huo-bui* *sao* *da-hui-t^huɔŋ*
almighty-NOM NPI-ACC-INC **curse** **NEG-GIVE-OPT**
'May the almighty not curse anyone!' (Bodo)

- (19c) *nuij-suij* *muɔna-jao* *haba* *da-mao*
2-PL night-LOC **work** **NEG-DO**
'(You-PL) Do not work at night.' (Bodo)

- (19d) *ap^ha-ja* *dinui* *hal* *eo-wa*
my.father-NOM today **plough** **PLOUGH-NEG**
'My father is not ploughing today.' (Bodo)

12. Comparison of Assamese and Bodo CjVs

CjVs in Assamese and Bodo share common features structurally and semantically as if they are from the same ancestral families. That's why the CjV patterns in these languages seem to be calques of one another. However, the difference in phonology and lexicon make them distinct from one another. They also differ in certain cases of selection of light verbs. Some similarities and dissimilarities that we came across while analysing the collected CjVs in these languages have been discussed in §12.1 and §12.2.

12.1 Similarity

It is so interesting to observe that CjVs in Assamese and Bodo share considerable common characteristics in the selection of components and meanings, though they belong to different broad language families. For example- [*lɔg pa*] (Assamese) and [*lùgũ mún*] (Bodo) for 'meet', [*lɔg d^hɔɔ*] (Assamese) and [*lùgũ hóm*] (Bodo) for 'meet with', and [*lɔg hɔ*] (Assamese) and [*lùgũ zà*] (Bodo) for 'befriend', [*lɔg lag*] (Assamese) and [*lùgũ nàŋ*] (Bodo) for 'unite', where [*lɔg*] and [*lùgũ*] have the same meaning 'friend', [*d^hɔɔ*] and [*hóm*] have the same meaning 'CATCH; HOLD', [*hɔ*] and [*zà*] have the same meaning 'BE(COME)', and [*lag*] and [*nàŋ*] have the same meaning 'APPLY; EMPLOY'. Table-12 shows the some more similar CjVs of these languages:

SN	Assamese CjV	Individual Meanings of the Components	Bodo CjV	Individual Meanings of the Components
1.	[<i>b^hal pa</i>] 'like'	[<i>b^hal</i>] 'good'; [<i>pa</i>] 'FIND; GET'	[<i>mùzāŋ mún</i>] 'like'	[<i>mùzāŋ</i>] 'good'; [<i>mún</i>] 'FIND; GET'

2.	[<i>kan de</i>] ‘pay attention’	[<i>kan</i>] ‘ear’; [<i>de</i>] ‘GIVE’	[<i>kʰùmā huì</i>] ‘pay attention’	[<i>kʰùmā</i>] ‘ear’; [<i>huì</i>] ‘GIVE’
3.	[<i>mən de</i>] ‘pay attention’	[<i>mən</i>] ‘mind’; [<i>de</i>] ‘GIVE’	[<i>gùsū huì</i>] ‘pay attention’	[<i>gùsū</i>] ‘mind’; [<i>huì</i>] ‘GIVE’
4.	[<i>uttɔɹ de</i>] ‘answer’	[<i>uttɔɹ</i>] ‘answer (n)’; [<i>de</i>] ‘GIVE’	[<i>pʰĩn huì</i>] ‘answer’	[<i>pʰĩn</i>] ‘answer (n)’; [<i>huì</i>] ‘GIVE’
5.	[<i>pʰɔn kɔɹ</i>] ‘make a call’	[<i>pʰɔn</i>] ‘phone’; [<i>kɔɹ</i>] ‘DO’	[<i>pʰɔn kʰalam</i>] ‘make a call’	[<i>pʰɔn</i>] ‘phone’; [<i>kʰalam</i>] ‘DO’
6.	[<i>hɑɹ pa</i>] ‘awake’	[<i>hɑɹ</i>] ‘consciousness’; [<i>pa</i>] ‘FIND’	[<i>sirĩ mún</i>] ‘awake’	[<i>sirĩ</i>] ‘consciousness’; [<i>mún</i>] ‘FIND’
7.	[<i>hasti de</i>] ‘punish’	[<i>hasti</i>] ‘punishment’; [<i>de</i>] ‘give’	[<i>sàzà huì</i>] ‘punish’	[<i>sàzà</i>] ‘punishment’; [<i>huì</i>] ‘GIVE’
8.	[<i>ɔbʰihap de</i>] ‘curse’	[<i>ɔbʰihap</i>] ‘curse’; [<i>de</i>] ‘GIVE’	[<i>saò huì</i>] ‘curse’	[<i>saò</i>] ‘curse’; [<i>huì</i>] ‘GIVE’
9.	[<i>upɔdeh de</i>] ‘advise’	[<i>upɔdeh</i>] ‘advice’; [<i>de</i>] ‘GIVE’	[<i>bùsùn huì</i>] ‘advise’	[<i>bùsùn</i>] ‘advice’; [<i>huì</i>] ‘GIVE’
10.	[<i>ɔnutap kɔɹ</i>] ‘repent’	[<i>ɔnutap</i>] ‘repentance’; [<i>kɔɹ</i>] ‘DO’	[<i>undaha kʰalam</i>] ‘repent’	[<i>undaha</i>] ‘repentance’; [<i>kʰalam</i>] ‘DO’

Table-12: Similar CjVs in Assamese and Bodo

12.2 Dissimilarity

Being two different languages from two different ancestral families, Assamese and Bodo CjVs differ in several ways. Indo-Aryan like Assamese employs a considerable number of CjVs whereas Tibeto-Burman has an average use of CjVs. However, Bodo also employs a considerable number of CjVs. Several differences between Assamese and Bodo CjVs are discussed in §12.2.1 through §12.2.3.

12.2.1 Same Components Different Meaning

It has been observed that Assamese and Bodo, in some cases, share the same combinations of nominals and light verbs with the same meanings; however, the meanings of the combinations i.e. the CjVs are different.

<i>S</i> <i>N</i>	<i>Assamese</i>	<i>Individual Meanings of the Components</i>	<i>Bodo</i>	<i>Individual Meanings of the Components</i>
1.	[<i>gatʰi lag</i>] ‘choke’	[<i>gatʰi</i>] ‘knot’; [<i>lag</i>] ‘APPLY; EMPLOY’	[<i>gàntʰi nàŋ</i>] ‘stick after mating (of dogs)’	[<i>gàntʰi</i>] ‘knot’; [<i>nàŋ</i>] ‘APPLY; EMPLOY’
2.	[<i>ga dʰɔ</i>] ‘bath’	[<i>ga</i>] ‘body’; [<i>dʰɔ</i>] ‘WASH’	[<i>mùdūm sú</i>] ‘to have a sponge bath’	[<i>mùdūm</i>] ‘body’; [<i>sú</i>] ‘WASH’

Table-13: Same Compositions with Different Meanings in Assamese and Bodo

12.2.2 Different Components Same Meaning

In this case, it is observed that the nominals in Assamese and Bodo CjVs have the same meanings whereas the light verbs are different. Nevertheless, they share the same meanings as in Table-14.

SN	Assamese	Individual Meanings of the Components	Bodo	Individual Meanings of the Components
1.	[p.ɛm kɔɪ] ‘love’	[p.ɛm] ‘love’; [kɔɪ] ‘DO; MAKE’	[gùsũ tʰú] ‘love’	[gùsũ] ‘;’; [tʰú] ‘SUFFICE’
2.	[p.ɔtigja kɔɪ] ‘promise’	[p.ɔtigja] ‘promise’; [kɔɪ] ‘DO’	[sòmaɪ lá] ‘promise’	[sòmaɪ] ‘promise’; [lá] ‘TAKE’
3.	[aɦi.ɪbad kɔɪ] ‘bless’	[aɦi.ɪbad] ‘blessing’; [kɔɪ] ‘DO’	[bùr hù] ‘bless’	[bùr] ‘blessing’; [hù] ‘GIVE’
4.	[kʰɔŋ kɔɪ] ‘become angry’	[kʰɔŋ] ‘anger’; [kɔɪ] ‘DO’	[ràgā zúŋ] ‘become angry’	[ràgā] ‘anger’; [zúŋ] ‘LIGHT (v)’
5.	[hukʰi hɔ] ‘be(come) happy’	[hukʰi] ‘happy’; [hɔ] ‘BE(COME)’	[kʰúsɪ zà] ‘be(come) happy’	[kʰúsɪ] ‘happy’; [zà] ‘BE(COME)’
6.	[bɔɪɔhun pɔɪ] ‘rain’	[bɔɪɔhun] ‘rain’; [pɔɪ] ‘FALL’	[òkʰā hā] ‘rain’	[òkʰā] ‘rain’; [hā] ‘REAP’

Table-14: Different CjV Compositions with same meanings in Assamese and Bodo

12.2.3 CjVs vs. their Simple Verb Forms in the other Language

Assamese employs a larger number of CjVs than Bodo whereas the latter has been employing CjVs as it develops its creative and translation literature of late. Most of the CjVs in Bodo have their equivalent counterparts in Assamese whereas some verbs retain their simple forms e.g. even if the Assamese CjV [ga dʰɔ] ‘bath’ has its equivalent in Bodo as [dùgũɪ sù], it does not denote to the same meaning as Assamese; rather it denotes ‘to have a sponge bath’ retaining the simple form [dùgũɪ] for ‘bath’.

SN	Assamese	Individual Meanings of the Components	Bodo	Individual Meanings of the Components
1.	[ga dʰɔ] ‘bath’	[ga] ‘body’; [dʰɔ] ‘WASH’	[dùgũɪ] ‘bath’	-----
2.	[ahban kɔɪ] ‘appeal’	[ahban] ‘appeal’; [kɔɪ] ‘DO’	[kʰaòlɔi] ‘appeal’	-----
3.	[hɔtja kɔɪ] ‘kill’	[hɔtja] ‘murder’; [kɔɪ] ‘DO’	[sɪtʰár] ‘kill’	-----
4.	[heh hɔ] ‘end’	[heh] ‘end’; [hɔ] ‘BE(COME)’	[zúb] ‘end’	-----
5.	[suma kʰa] ‘kiss’	[suma] ‘kiss’; [kʰa] ‘CONSUME’	[kʰùdúm] ‘kiss’	-----
6.	[haɪ] ‘be defeated’	-----	[gèzēn zà] ‘be defeated’	[gèzēn] ‘loser’; [zà] ‘BE(COME)’
7.	[atɔɪ] ‘be off’	-----	[gùzān zà] ‘be off’	[gùzān] ‘distant’; [zà] ‘BE(COME)’

Table-15: CjVs vs. their Simple Verb Forms in the other Language

While observing the simple verb forms in one language versus their semantically equivalent CjV forms in the other language, it is found that CjVs are more widely employed in Assamese than Bodo. The Bodo CjV in Sl. No. 5 [gèzēn zà] is merely a forward formation of the simple verb [zén] ‘be defeated’, which has been observed as a calque of the Assamese [Adj + LV] CjV [pɔɪazit hɔ] ‘be defeated’, in some contemporary Bodo translation.

13. Conclusion

In both Assamese and Bodo, conjunct verbs of [N + LV] pattern are more prominent in number than those of [Adj + LV] pattern. A few instances of conjunct verbs of [N + Adj + LV], [N + N + LV], and [N + Adv + LV] structures are also observed in these languages. Usually, the nominals in the Assamese and Bodo are from diverse domains. On the other hand, the most common light verbs in literal CjVs are [de], [dʰɔɹ], [hɔ], [kɔɹ], [kʰa], [lag], [lɔ], [pa] (Assamese) and [hù], [hóm], [zà], [kʰàlām], [zá], [nàŋ], [lá], [mún] (Bodo). Interestingly, these are semantically equivalent to one another, respectively. However, the light verbs in idiomatic CjVs of these languages are from a diverse range except several common light verbs like [de] and [kɔɹ] in Assamese; and [hù] and [nàŋ] in Bodo.

CjVs in these languages are found in two broad categories, viz. literal and idiomatic; whereas a few CjVs are found in baby talk. In the CjVs of Assamese baby talk, the usual light verbs like [de], [za], [kɔɹ] and [lag] employed whereas [hùn] has been exclusively employed as the only light verb in Bodo CjVs. The grammatical categories of CjVs co-occur with the light verbs. The usual order of TAM is Aspect-Tense-Mood; whereas, the derivational affixes like passiviser, causativiser, negator, deixis, and telicity occur immediately around the verb bases. Among these grammatical categories, deictic markers are observed in Bodo only; however they occur very rarely with the Bodo CjVs.

Assamese and Bodo share many common structural and semantic features in terms of CjVs. Forward formation like [hikʰjɔkɔta kɔɹ] (teachership DO) ‘work as a teacher’ (Assamese), [pʰàhàmtʰaī lā] (treatment take) ‘get treated medically’ (Bodo) is a common contemporary derivational phenomenon of CjVs in these languages.

Abbreviations

1	- 1 st Person	FAM	- Familiar
2	- 2 nd Person	FOC	- Focus Particle
3	- 3 rd Person	FUT	- Future Tense
A	- Agent	GEN	- Genitive Case
ACC	- Accusative Case	HAB	- Habitual Aspect
Adj	- Adjective	HON	- Honorific
Adv	- Adverb	ILL	- Illative Case
ASP	- Aspect	IMP	- Imperative
AUX	- Auxiliary Verb	IN	- Inward Deixis
CAUS	- Causative Verb	INC	- Inclusive
CjV	- Conjunct Verb	INF	- Infinitive
CP	- Complementiser Particle	INFL	- Informal
CULM	- Culmination	INFR	- Inferential Mood
DEF	- Definitive	INS	- Instrumental Case
DST	- Distal Deixis	INT	- Interrogative
DUB	- Dubitative Mood	LOC	- Locative Case
DWN	- Downward Deixis	LV	- Light Verb
ECHO	- Echo Word	M	- Masculine
EPMH	- Emphatic Particle	MD	- Mood
ERG	- Ergative Case	MOD.ADV	- Advice (Mood)
F	- Feminine	N	- Noun

NEG	- Negative	PRX	- Proximal Deixis
NOM	- Nominative Case	PST	- Past Tense
NOML	- Nominaliser	PW	- Pseudo-word
NPI	- Negative Polarity Item	REC	- Reciprocal Verb Suffix
ONO	- Onomatopoeic Word	RED	- Reduplicant
OPT	- Optative	SUBJ	- Subjunctive
OUT	- Outward Deixis	SUBJCOR	- Subjunctive Correlator
P	- Patient	TERM	- Termination
PASS	- Passive	TNS	- Tense
PFV	- Perfective Aspect	UP	- Upward Deixis
PL	- Plural	v; V	- Verb
PREC	- Precative Mood		
PRF	- Perfect Aspect		

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বাংলা বাচ্য ও কারকের আন্তঃসম্পর্ক: একটি শব্দ-অর্থতাত্ত্বিক ও প্রয়োগতাত্ত্বিক অনুসন্ধান

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ABSTRACT

একটি নির্দিষ্ট কথোপকথন পরিস্থিতির অন্তর্গত কোনও একটি বিশেষ আর্টিকুলেশন অর্থাৎ বাক, কনটেন্ট অর্থাৎ বিষয়বস্তু, কনটেক্সট অর্থাৎ প্রেক্ষিত এবং Commonly Shared Knowledge Base অর্থাৎ বক্তা ও শ্রোতা উভয়ের স্বীকৃত জ্ঞানতাত্ত্বিক বোঝাপড়ার উপর নির্ভর করে। যেকোনও কথোপকথনের পরিস্থিতিতে বক্তা বিকল্প হিসেবে উপলব্ধ বাচ্যগুলির মধ্যে বক্তুরিচ্ছা অর্থাৎ Communicative Intention অনুযায়ী বাচ্যের সর্বাপেক্ষা নির্ভরযোগ্য বিকল্পটিকে ব্যবহার করেন। বাচ্যের পরিবর্তনে ক্রিয়াপদের রূপের পরিবর্তন, এবং সেই পরিবর্তনের ফলে ক্রিয়াপদের সঙ্গে সম্পর্কযুক্ত বিশেষ্য পদসমূহের অবয়বের পরিবর্তন, এই সমগ্র বিষয়টিই কোনও বিশেষ কথোপকথনের ঘটনায় বক্তার জ্ঞাপনেচ্ছার পরিবর্তনের সঙ্গে সাযুজ্য বজায় রেখে সাধিত হয়। বাচ্যের পরিবর্তনে ক্রিয়াপদের রূপের পরিবর্তনের সঙ্গে সামঞ্জস্য রেখে সেই পরিবর্তিত ক্রিয়ারূপের গাঠনিক ও আন্বয়িক শর্ত পূরণ করতে বাক্যের অন্তর্গত বিশেষ্য পদসমূহের আদৌ কোনওপ্রকার রূপ পরিবর্তন ঘটে কি না, সেই পরিবর্তন বিশেষ্য-ক্রিয়াপদের স্বাভাবিক আন্বয়িক সম্পর্ককে কীভাবে প্রভাবিত করে এবং বাচ্য পরিবর্তনের প্রয়োগতাত্ত্বিক কারণ ব্যাখ্যাই এই প্রবন্ধের মূল উপজীব্য বিষয়।

১। ভূমিকা

কোনও একটি বিশেষ কথোপকথনের ঘটনায় (Speech Event) একজন বক্তা তাঁর ইচ্ছা ও প্রয়োজন অনুসারে বিভিন্ন বাচ্যের আশ্রয় নিয়ে থাকেন। বক্তুরিচ্ছা অর্থাৎ Communicative Intention বক্তা কর্তৃক কোনও একটি বিশেষ বাচ্যের নির্বাচনে গুরুত্বপূর্ণ ভূমিকা গ্রহণ করে। বক্তুরিচ্ছার পরিবর্তনের সঙ্গে সামঞ্জস্য রেখে বাচ্যের পরিবর্তনে প্রত্যয় ও বিভক্তির বিশিষ্ট ভূমিকা রয়েছে। কোনও একটি বিশেষ আর্টিকুলেশন অর্থাৎ বাক, কনটেন্ট অর্থাৎ বিষয়বস্তু, কনটেক্সট অর্থাৎ প্রেক্ষিত এবং Commonly Shared Knowledge Base অর্থাৎ বক্তা ও শ্রোতা উভয়ের স্বীকৃত জ্ঞানতাত্ত্বিক বোঝাপড়ার উপর নির্ভর করে। উপরোক্ত তিনটি বিষয়ের মিথস্ক্রিয়ার ফলস্বরূপ কথোপকথন চলাকালীন বক্তার কোনও আর্টিকুলেশনে গ্রাইস-প্রস্তাবিত কোঅপারেটিভ প্রিন্সিপল এবং ম্যাক্সিমগুলি অটুট থাকতে অথবা লঙ্ঘিত হতে পারে। বাচ্য পরিবর্তনের ফলে ক্রিয়াপদের রূপের পরিবর্তনের সঙ্গে সঙ্গেই বাক্যাংশের অন্তর্গত বিশেষ্যপদগুলির সঙ্গে সংশ্লিষ্ট বিশেষ বিশেষ প্রয়োগতাত্ত্বিক বৈশিষ্ট্য, যেমন টপিকহুড, ফোকাস ইত্যাদির পরিবর্তন ঘটে। বাচ্যের পরিবর্তনে ক্রিয়াপদের রূপের পরিবর্তন, এবং সেই পরিবর্তনের ফলে ক্রিয়াপদের সঙ্গে সম্পর্কযুক্ত বিশেষ্য পদসমূহের অবয়বের পরিবর্তন, এই সমগ্র বিষয়টিই একটি বিশেষ কথোপকথনের ঘটনায় বক্তার জ্ঞাপনেচ্ছার পরিবর্তনের সঙ্গে সাযুজ্য বজায় রেখে সাধিত হয়।

বাচ্যের আলোচনায় কারকের প্রসঙ্গ গুরুত্বপূর্ণ কেন? পাণিনীয় ঐতিহ্য অনুসারে, "ক্রিয়াস্বয়ী কারকম", অর্থাৎ বাক্যের অন্তর্গত পদসমূহ কোন সূত্রে ক্রিয়াপদের সঙ্গে সম্পর্কযুক্ত তা-ই কারকসম্পর্কের প্রতিপাদ্য বিষয়। বাচ্যের পরিবর্তনে যেহেতু ক্রিয়াপদের রূপের অবশ্যস্বাভাবী পরিবর্তন ঘটে, সেই পরিবর্তিত ক্রিয়ারূপের গাঠনিক ও আন্বয়িক শর্ত পূরণ করতে বাক্যের অন্তর্গত বিশেষ্য পদসমূহের আদৌ কোনওপ্রকার রূপ পরিবর্তন ঘটে কি না এবং সেই পরিবর্তন

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বিশেষ্য-ক্রিয়াপদের স্বাভাবিক আন্বয়িক সম্পর্ককে কীভাবে প্রভাবিত করে, সেই বিষয়টিও যথাযথ পরিসরে আলোচনার দাবি রাখে। উপরোক্ত বিষয়গুলির ভাষাতাত্ত্বিক ব্যাখ্যাই বর্তমান প্রবন্ধে উপস্থাপন করা হবে।

২। গবেষণার উদ্দেশ্য ও গবেষণা-সংক্রান্ত প্রশ্নসমূহ

ইংরেজি ব্যাকরণে যে বিষয়টি “grammatical voice” নামে পরিচিত, বাংলায় সেই বিষয়টিকেই আমরা বাচ্য বলে জানি। বাংলা ভাষায় স্বীকৃত বাচ্যের প্রকারগুলির সঙ্গে সংশ্লিষ্ট রূপ-আন্বয়িক বিষয়গুলির ব্যাখ্যা ভারতীয় ব্যাকরণ ঘরানায় দেওয়া হলেও, ভাষাবিজ্ঞানে গ্রাইস-প্রস্তাবিত কোঅপারেটিভ প্রিন্সিপাল ও ম্যাক্সিম অনুসারে বাচ্য পরিবর্তনের একটি নতুনতর প্রয়োগতাত্ত্বিক ব্যাখ্যা দেওয়া সম্ভব। কোনও একটি বিশেষ কথোপকথন-পরিস্থিতিতে বক্তা যখন একটি নির্দিষ্ট বাংলা বাক্য উচ্চারণ করে, তখন সেই বাক্যের অন্তর্নিহিত বক্তুরিচ্ছার প্রয়োগতাত্ত্বিক পরিবর্তন তথা প্রাগম্যাটিক অন্টারেশনে বিভক্তি ও প্রত্যয়ের বিশিষ্ট ব্যবহারের মারফৎ বাচ্য কীভাবে ক্রিয়াশীল হয়, তা ই এই প্রবন্ধের মূল উপজীব্য বিষয়। বক্তা-কর্তৃক বিভক্তি ও প্রত্যয়ের বিশিষ্ট ব্যবহারই শ্রোতার নিকট বক্তার বক্তুরিচ্ছার পরিবর্তনের সম্ভাব্য ইঙ্গিত বহন করে।

উপরোক্ত উদ্দেশ্য সাধনের জন্য বর্তমান প্রবন্ধে তিনটি প্রশ্নের উত্তর অন্বেষণ করার চেষ্টা করা হবে:

১। বাংলায় বাচ্য কীভাবে শব্দ-অন্বয়তাত্ত্বিক প্রক্রিয়ায় প্রকাশিত হয়?

২। বাচ্যের পরিবর্তনে ক্রিয়াপদের রূপের যে পরিবর্তন ঘটে, তার প্রেক্ষিতে বাক্যের উদ্দেশ্য এবং বিধেয় অবস্থানে থাকা বিশেষ্য (এবং সর্বনাম) পদগুলির নির্ধারিত কারক-সম্পর্কের অ/পরিবর্তনের বিষয়টিকে কীভাবে ব্যাখ্যা করা সম্ভব?

৩। বক্তুরিচ্ছার পরিবর্তন এবং বাচ্যের পরিবর্তনের পারস্পরিক সম্পর্কের প্রয়োগতাত্ত্বিক ব্যাখ্যা কী?

৩। বাচ্য-সম্বন্ধীয় ভারতীয় এবং পাশ্চাত্য-ব্যাকরণতাত্ত্বিক ব্যাখ্যাসমূহ

ভারতীয় ব্যাকরণ পরম্পরা অনুসারে বাচ্যকে বিভিন্নভাবে ব্যাখ্যা করা হয়েছে। হরিচরণ বন্দ্যোপাধ্যায় (১৯৬৬) তাঁর বঙ্গীয় শব্দকোষ-এ বক্তার ইচ্ছানুসারে কোনও একটি বিশেষ বাক্যে ক্রিয়াপদ ও বিশেষ্যপদের সম্পর্কের পরিবর্তনকেই বাচ্য হিসেবে নির্দেশ করেছেন। সুনীতিকুমার চট্টোপাধ্যায়ের ভাষা-প্রকাশ বাঙ্গালা ব্যাকরণ (১৯৮৮) অনুসারে, বাচ্য প্রকৃতপক্ষে ক্রিয়াপদের এমন রূপভেদকে নির্দেশ করে যার মাধ্যমে বাক্যের কর্তা, কর্ম ইত্যাদির সঙ্গে ক্রিয়াপদের অন্বয় বোঝায়। এছাড়াও বাচ্য কর্তা ও কর্মের সঙ্গে ক্রিয়াপদের অন্বয়কে না বুঝিয়ে ক্রিয়াপদের কার্যকেই প্রধানরূপে সূচিত করতে পারে।

পাশ্চাত্য ব্যাকরণ ঘরানার অনুসরণে ক্লেইম্যান (১৯৯১) বাচ্য তথা grammatical voice এর বিষয়টিকে যেভাবে উপস্থাপন করেছেন তা বিশেষ উল্লেখযোগ্য :

১। বাচ্যের পরিবর্তনের ফলে বাক্যস্থিত ক্রিয়াপদের রূপের পরিবর্তনের ফলে বাক্যের অন্তর্গত বিশেষ্য পদগুলির পূর্বনির্ধারিত অবস্থান ও রূপের পরিবর্তন ঘটে।

২। এর ফলস্বরূপ পরিবর্তিত বাচ্যে পরিবর্তিত রূপবিশিষ্ট ক্রিয়াপদের চাহিদা অনুযায়ী বাক্যের উদ্দেশ্য অবস্থানে কোন বিশেষ্য পদটি বসবে তা নির্ধারিত হয়।

৩। টপিকভুড, ফোকাস ইত্যাদি প্রয়োগতাত্ত্বিক তথা অধিবাচনিক বিষয়গুলি বুঝতে বাক্যস্থিত ক্রিয়াপদ ও বিশেষ্যপদের রূপ এবং অবস্থান পরিবর্তনজনিত উপরোক্ত দুটি ঘটনা গুরুত্বপূর্ণ ভূমিকা পালন করে।

ক্লেইম্যানের বাচ্য-সংক্রান্ত বোঝাপড়া অনুযায়ী, grammatical voice is traditionally associated “with alternations in viewpoint encoded in structures that are both formally as well as logically transitive”. অর্থাৎ, বাচ্যের বিষয়টি কেবলমাত্র সকর্মক ক্রিয়া অর্থাৎ transitive verb এর সঙ্গেই সংশ্লিষ্ট। কোনও একটি সকর্মক ক্রিয়াপদের কার্য সম্পাদনের জন্য একটি কর্তা এবং ন্যূনতম একটি কর্মপদের প্রয়োজন হয়। এই কর্তা এবং কর্ম দুইপ্রকার পদই সাধারণত বিশেষ্যপদ হয়। কর্তা তথা কর্তৃপদ এবং কর্মপদরূপী দুটি বিশেষ্যপদ সকর্মক ক্রিয়ার কার্য সম্পাদনের জন্য আবশ্যিক হওয়ায় এই দুই বিশেষ্যপদের নিরিখে ক্রিয়াপদের কার্য সম্পাদনের বিষয়টিকে দুটি ভিন্ন দৃষ্টিকোণ থেকে বিচার করা সম্ভব। এই দুই ভিন্ন দৃষ্টিকোণকেই বাংলায় কর্তৃবাচ্য ও কর্মবাচ্য (ইংরেজিতে active ও passive voice) বলা হয়। কর্তৃবাচ্যে ক্রিয়া সম্পাদনের ক্ষেত্রে কর্তা সক্রিয় ভূমিকায় অবতীর্ণ হয় এবং কর্তৃপদরূপী বিশেষ্যটি “বাক্যের মধ্যে প্রধান রূপে প্রতীয়মান হয়...” (চট্টোপাধ্যায়, ১৯৮৮)। অপরপক্ষে, কর্মবাচ্যে

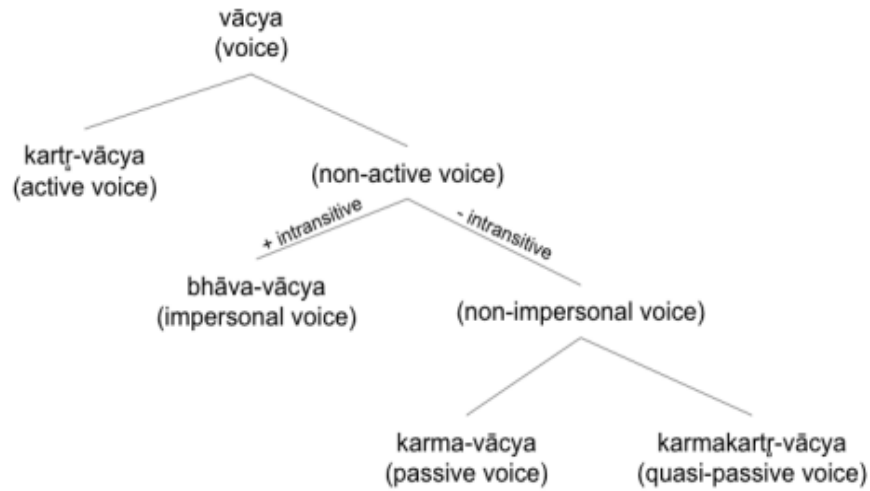
ক্রিয়া সম্পাদনের ক্ষেত্রে কর্তা নিষ্ক্রিয় ভূমিকা পালন করে এবং কর্মপদরূপী বিশেষ্যই মুখ্য ভূমিকা গ্রহণ করে, "কর্তা অপেক্ষা যেন কর্মের সহিতই ক্রিয়ার ঘটনার প্রধান যোগ কল্পিত হয়" (চট্টোপাধ্যায়, ১৯৮৮)।

ইংরেজি ভাষায় কেবলমাত্র সকর্মক ক্রিয়াপদেরই বাচ্য স্বীকৃত হলেও, বাংলায় ভাববাচ্য ও কর্মকর্তৃবাচ্য নামে অপর দুইপ্রকার বাচ্য রয়েছে। কর্মবিহীন অর্থাৎ অকর্মক ক্রিয়াপদকে অবলম্বন করে ভাববাচ্য (Neuter/ Intransitive Passive/ Impersonal Voice) এর ধারণাটি গড়ে উঠেছে, যেখানে কর্তা অথবা কর্ম নয়, বরং ক্রিয়ার ঘটনাই বাক্যের মধ্যে প্রধান হিসেবে বিবেচিত হয়। কর্মকর্তৃবাচ্য তথা Middle/ Quasi-Passive Voice এর ক্ষেত্রে ক্রিয়াপদের কর্তা তথা বাক্যের কর্তৃপদটিকে সুস্পষ্টভাবে নির্দিষ্ট করা দুরূহ হয়ে ওঠে, এক্ষেত্রে "কর্মই যেন নিজের উপর ক্রিয়া করে" (চট্টোপাধ্যায়, ১৯৮৮)।

বাক্যস্থিত একটি নির্দিষ্ট ক্রিয়াপদের কর্ম সম্পাদনের জন্য ন্যূনতম যত সংখ্যক বিশেষ্যপদের প্রয়োজন হয়, সেই নির্দিষ্ট সংখ্যাটিকে ওই বিশেষ ক্রিয়াপদটির যোজ্যতা (Valency)² বলা হয়। কর্তৃবাচ্যে সকর্মক ক্রিয়াপদের ক্ষেত্রে এই যোজ্যতা ২ (১টি কর্তৃ ও ১টি কর্মপদরূপী বিশেষ্য), দ্বিকর্মক ক্রিয়াপদের যোজ্যতা ৩ (১টি কর্তৃ ও ২টি কর্মপদরূপী বিশেষ্য) এবং অকর্মক ক্রিয়াপদের যোজ্যতা ১ (কেবলমাত্র ১টি কর্তৃপদরূপী বিশেষ্য)। কর্তৃবাচ্য থেকে অন্যান্য বাচ্যে যাতায়াতের ফলে ক্রিয়াপদের সঙ্গে সম্পর্কযুক্ত অর্থতাত্ত্বিক ভূমিকাগুলির পরিবর্তনের সঙ্গে সঙ্গে উক্ত ক্রিয়াপদের যোজ্যতার পরিবর্তন/ অবনমন ঘটে। এই বিষয়ে ফিলমোর (১৯৬৮) এর বক্তব্য, ক্রিয়ারূপের পরিবর্তনের মধ্যে বাচ্য পরিবর্তনের যে ইঙ্গিত লুকিয়ে থাকে তা আসলে বাক্যস্থিত ক্রিয়াপদ ও বিশেষ্যপদের মৌলিক সম্পর্কে প্রভাবিত করে- বাচ্য পরিবর্তনের ফলে পূর্বের আন্বয়িক সম্পর্কের বিচ্যুতি ঘটে। বাক্যস্থিত ক্রিয়াপদ ও বিশেষ্যপদের মৌলিক সম্পর্কের বিচ্যুতির ফলস্বরূপ পরিবর্তিত বাচ্যে ক্রিয়াপদটির জন্য নির্ধারিত অর্থতাত্ত্বিক ভূমিকার সংখ্যা হ্রাস পেতে পারে, তাদের ক্রম পরিবর্তিত হতে পারে এবং ক্রিয়াপদ এবং তার জন্য নির্ধারিত যেকোনও একটি বিশেষ্যপদের স্বকীয় সম্পর্কটি অপর কোনও বিশেষ্যপদের হস্তান্তরিত হতে পারে। পূর্ববর্তী গবেষণামূলক কাজগুলিতে ক্রিয়াপদ ও বিশেষ্যপদের স্বকীয় সম্পর্কের পুনর্বিব্যাখ্যার অন্তর্নিহিত প্রয়োগতাত্ত্বিক কারণগুলির যথাযথ ব্যাখ্যা দেওয়া হয়নি।

৪। বাংলা ব্যাকরণে বাচ্য এবং বাচ্যের স্বীকৃত প্রকারসমূহ

বাংলা ভাষায় বাচ্যের স্বীকৃত রূপভেদগুলি নীচে রেখাচিত্রের মাধ্যমে প্রদর্শিত হল:



² প্রকৃতপক্ষে, একটি নির্দিষ্ট সকর্মক/ অকর্মক/ দ্বিকর্মক ক্রিয়াপদের কর্ম সম্পাদনের বিষয়টি উক্ত ক্রিয়াপদটির সঙ্গে অঙ্গাঙ্গীরূপে সংশ্লিষ্ট কতকগুলি অর্থতাত্ত্বিক ভূমিকা বা semantic role (এজেন্ট, থিম, গোল, বেনিফিশিয়ারি ইত্যাদি) এর উপর নির্ভর করে। ক্রিয়াপদের সঙ্গে সংশ্লিষ্ট প্রত্যেকটি অর্থতাত্ত্বিক ভূমিকা পালনের জন্য একটি করে বিশেষ্যপদ, এই হিসেবে কোনও ক্রিয়াপদ যতগুলি বিশেষ্যপদের সাহায্য গ্রহণ করে, সেই সংখ্যাই উক্ত ক্রিয়াপদের যোজ্যতা।

উপরোক্ত প্রত্যেক প্রকার বাচ্যের নিজস্ব রূপ-অন্বয়তাত্ত্বিক বৈশিষ্ট্য রয়েছে। এই বৈশিষ্ট্যের স্বকীয়তাকে ব্যবহার করে কোনও একটি বিশেষ কথোপকথনের পরিস্থিতিতে বক্তা তাঁর ইঙ্গিত অর্থ বিভিন্নভাবে প্রকাশ করে থাকেন। বাংলায় স্বীকৃত চারপ্রকার বাচ্যের উদাহরণ নীচে দেখানো হয়েছে

১।	কর্তৃ-বাচ্য (Active Voice)			
	আমি	তোমাকে	কথাটা	বলেছিলাম
	I.NO M	2.ACC	fact.CLF.ACC	inform.PERF.PST.1
	I had informed you of the fact.			

২।	কর্ম-বাচ্য (Passive Voice, not applicable to the utterances with intransitive verbs)			
	তোমাকে	কথাটা	বলা	হয়েছিল
	2.ACC	fact.CLF.ACC	inform-NMLZ	be.PERF.PST.3
	You had been informed about the fact (by me)			

৩।	ভাব-বাচ্য (neuter/ intransitive passive/ impersonal voice applicable to the utterances with intransitive verbs)		
	তার	ঘুম	হয়েছে
	3.GEN	sleep.NMLZ	be.PERF.PRS.3
	(The event of) sleeping has happened to him		

৪।	কর্ম-কর্তৃ বাচ্য (middle/ quasi-passive voice)	
	বেলটা	বেজেছিল
	bell.CLF.ACC	ring.IMPF.PST.3
	The bell rang.	

উপরোক্ত ৪টি উদাহরণে চারপ্রকার বাচ্য চারটি বিভিন্ন উপায়ে রূপ-অন্বয়গতভাবে চিহ্নিত হয়েছে। মনে রাখা প্রয়োজন, বাংলায় বাচ্য পরিবর্তনকে সুস্পষ্টভাবে নির্দেশ করার জন্য নির্দিষ্ট কোনও মরফিম/ রূপিম ব্যবহৃত হয় না। বরং বাংলায় বাচ্যের পরিবর্তনকে কতকগুলি রূপ-আন্বয়িক প্রক্রিয়ার সমাহার হিসেবে গণ্য করা যেতে পারে। উদাহরণ ১ এ কর্তৃবাচ্যের উদাহরণ হিসেবে নেওয়া বাক্যটি যখন কর্মবাচ্যে রূপান্তরিত হয়, তখন বাক্যটির উদ্দেশ্য অবস্থানে থাকা বিশেষ্য পদ "আমি" এবং ক্রিয়াপদ "বলেছিলাম" যে বিশেষ রূপ-আন্বয়িক পরিবর্তনের মধ্য দিয়ে যায়, তা নিচে দেখানো হলো

৫।	আমি	>	অনুপস্থিত
	I.NOM	>	-

৬।	বলেছিলাম	>	বলা	হয়েছিল
	inform.PERF.PST.1	>	inform-NMLZ	be.PERF.PST.3

উদাহরণ_১ এর উদ্দেশ্য অবস্থানে থাকা কর্তৃকারক-চিহ্নিত বিশেষ্যপদ "আমি" কর্মবাচ্যের বাক্যটিতে (উদাহরণ_২) ঐচ্ছিক হয়ে পড়েছে এবং তার বিলোপন ঘটেছে। উক্ত বাক্যে উদ্দেশ্যের অবস্থান অধিগ্রহণ করেছে কর্তৃবাচ্যের বাক্যটির (উদাহরণ_১) কর্ম "তোমাকে"। অন্যদিকে কর্তৃবাচ্য-সম্বলিত বাক্যের ক্রিয়াপদ "বলেছিলাম" কর্মবাচ্যে "বলা হয়েছিল" তে রূপান্তরিত হয়েছে।

উদাহরণ-১ এর "বলা" ক্রিয়াপদ আসলে একটি ৩-যোজ্যতা বিশিষ্ট দ্বিকর্মক ক্রিয়া। কর্তৃবাচ্যে এই ক্রিয়াপদের কর্ম সম্পাদনের জন্য তিনটি নির্দিষ্ট অর্থতাত্ত্বিক ভূমিকার প্রয়োজন হয়। এই তিনটি বিশিষ্ট অর্থতাত্ত্বিক ভূমিকায় অবতীর্ণ হয় তিনটি বিশেষ্য- ক্রিয়া-সম্পাদনকারী অর্থাৎ এজেন্ট "আমি", এবং দুটি কর্ম, মুখ্য অর্থাৎ অপ্রাণীবাচক কর্ম হিসেবে "কথাটা", এবং গৌণ অর্থাৎ অপ্রাণীবাচক কর্ম "তোমাকে"। কিন্তু কর্তৃবাচ্য থেকে কর্মবাচ্যে রূপান্তরের সময় ক্রিয়াপদের রূপ-আন্বয়িক পরিবর্তন (বলেছিলাম > বলা হয়েছিল) এবং তার সঙ্গে সংশ্লিষ্ট বিশেষ্য ও ক্রিয়াপদের অন্তর্নিহিত সম্পর্কের বিচ্ছিন্নতার কারণে কর্মবাচ্যের ক্রিয়াপদটির ক্রিয়া সম্পাদনের জন্য "এজেন্ট" এর ভূমিকাটি ঐচ্ছিক হয়ে পড়েছে। এক্ষেত্রে ৩টির পরিবর্তে ২টি অর্থতাত্ত্বিক ভূমিকাই যথেষ্ট হয়, যেগুলি মুখ্য ও গৌণ কর্মপদের অবস্থানে থাকা বিশেষ্যপদ দুটিই আবশ্যিকরূপে পালন করে।

উপরে প্রদর্শিত ৩ নং বাক্য অর্থাৎ ভাববাচ্যের উদাহরণে অবশ্য পূর্বের মত অর্থতাত্ত্বিক ভূমিকার বিলোপন ঘটে না। যেহেতু কেবলমাত্র অকর্মক ক্রিয়াপদেরই (যার যোজ্যতা ১) ভাববাচ্য সম্ভব, তাই, অর্থের স্তরে ভাববাচ্যের ক্রিয়াপদের (এক্ষেত্রে উদাহরণ-৩ এর ক্রিয়াপদ "ঘুম হয়েছে") সঙ্গে সংশ্লিষ্ট একটিমাত্র অর্থতাত্ত্বিক ভূমিকাটি এবং তা পালনকারী বিশেষ্যপদটির বিলোপন সম্ভব নয়। কর্মবাচ্য ও ভাববাচ্য- উভয়ক্ষেত্রেই ক্রিয়াপদটি ("বলা হয়েছিল" এবং "ঘুম হয়েছে" বিশেষ্যায়িত হয়ে অসমাপিকা ক্রিয়াপদের রূপ পরিগ্রহণ করার ফলে অপর একটি সমাপিকা ক্রিয়ার প্রয়োজন হয়েছে। ভাববাচ্য সম্বলিত বাক্যটির কর্তৃবাচ্যের রূপটি দেখলে ক্রিয়াপদের পাশাপাশি বিশেষ্যপদের রূপ পরিবর্তনের বিষয়টিও স্পষ্ট হয়।

৭।	সে	ঘুমিয়েছে	
	3.NOM	sleep.PERF.PRS.1	
	He has slept (active voice)		
৮।	তার	ঘুম	হয়েছে
	3.GEN	sleep.NMLZ	be.PERF.PRS.3
	(The event of) sleeping has happened to him (neuter/impersonal voice)		

বাচ্য পরিবর্তনের ফলে বাক্যের ক্রিয়াপদের রূপের পরিবর্তনের কারণেই বাক্যস্থিত বিশেষ্য পদের অর্থতাত্ত্বিক ভূমিকার বিলোপন অথবা তার পর্যবেক্ষণযোগ্য রূপ-অন্বয়তাত্ত্বিক পরিবর্তন ঘটে- উপরের উদাহরণগুলিতে ক্লেইম্যান (১৯৯১) এর এই বক্তব্যই সমর্থিত হয়। বাংলা ভাষায় তিনপ্রকার বাচ্যের উদাহরণে ক্রিয়াপদের যে রূপগুলি আমরা দেখতে

পাচ্ছি, তা বাংলা শব্দ-সংগঠনের কোনও বিক্ষিপ্ত দৃষ্টান্ত নয়, বরং এগুলি “the embodiment of morpho-syntactic structures with a set of principles governing the semantic composition of the utterances - since words have their structural values only as a part of the larger constructions” (কর্মকার, ২০২৫)।

৫। তথ্য পর্যালোচনা ও বিশ্লেষণ: কারক ও বাচ্যের পারস্পরিক মিথস্ক্রিয়ার ব্যাখ্যা

উপরে আমরা বাচ্য পরিবর্তনের ফলে একটি বাক্যের ক্রিয়ারূপের পরিবর্তন (সমাপিকা > অসমাপিকা) এবং সেই পরিবর্তিত ক্রিয়ারূপের যোজ্যতা হ্রাসজনিত কারণে বিশেষ্যপদের বিলোপনের ঘটনা প্রত্যক্ষ করেছি। বাচ্য পরিবর্তনের দরুণ সমাপিকা ক্রিয়াপদের অসমাপিকা ক্রিয়াপদের ন্যায় আচরণ একটি অস্বাভাবিক স্তরের ঘটনা। এর ফলে ক্রিয়াপদটির মূলগত অর্থের খুব একটা পরিবর্তন হয় না। ফলত, অর্থের স্তরে একটি ক্রিয়ার সংঘটনে যে সকল ধারণার ভূমিকা থাকে তা বাচ্য নির্বিশেষে অপরিবর্তনীয় থাকে। এক্ষেত্রে যেটুকু পরিবর্তন পরিলক্ষিত হয় বাক্যের বহিরাঙ্গ শব্দের বিশিষ্ট সজ্জাই তার কারণ।

এই ঘটনা পরবর্তী যে প্রশ্নটির উদ্বেক করে তা হল, ক্রিয়াপদের যোজ্যতার হ্রাস কি বিশেষ্য ও ক্রিয়াপদের আন্বয়িক সম্পর্ক তথা কারকসম্পর্কেও প্রভাবিত করে? উপরের ৭ এবং ৮ নং উদাহরণগুলি ভালোভাবে লক্ষ্য করলে দেখা যায়, কর্তৃবাচ্যে থাকা “সে ঘুমিয়েছে” বাক্যটির (৭ নং উদাহরণ) কর্তা “সে” এবং ক্রিয়াপদ “ঘুমিয়েছে” পরস্পর কর্তৃসম্বন্ধে আবদ্ধ, অর্থাৎ এখানে “সে” বিশেষ্যপদের কর্তৃকারক হয়েছে। ওই একই বাক্য যখন ভাববাচ্যে নীত হয়, তখন ক্রিয়াপদের রূপ পরিবর্তনের (ঘুমিয়েছে > ঘুম হয়েছে) সঙ্গে অর্থতাত্ত্বিক ভূমিকা পালনকারী একমাত্র বিশেষ্যপদটিরও রূপ পরিবর্তন ঘটেছে (সে > তার)। “ঘুম হয়েছে” এই বিশেষ্য-ক্রিয়াজোড়ের অসমাপিকা অংশ “ঘুম” এর সঙ্গে “তার” বিশেষ্যপদের সম্বন্ধ রয়েছে, কিন্তু উক্ত বাক্যাংশের সমাপিকা ক্রিয়া-অংশ “হয়েছে” এর সঙ্গে এই বিশেষ্যপদের কোনও সম্পর্ক না থাকায় এটি সম্বন্ধ পদে পর্যবসিত হয়েছে। ভাববাচ্যস্থিত বাক্যটির বিশেষ্য-ক্রিয়াজোড়ের (ঘুম/ঘুমোনো হয়েছে) “হয়েছে” অংশটি এখানে আদতে একটি সহায়ক ক্রিয়াপদের ভূমিকা পালন করছে, যা ক্রিয়াপদটির “কাল” ও প্রকার বৈশিষ্ট্যকে নির্দেশ করলেও বিশেষ্য পদটিকে কোনওপ্রকার কারকসম্পর্কে আবদ্ধ করতে পারে না। কর্তৃবাচ্য থেকে কর্ম অথবা ভাববাচ্যে যাতায়াতের সময় “এজেন্ট” এর অর্থতাত্ত্বিক ভূমিকাটি আবশ্যিকতা হারানো এবং কর্তা ঐচ্ছিক হয়ে পড়ার কারণে কর্তৃবাচ্য-সম্বলিত বাক্যের কর্ম, কর্মবাচ্য-সম্বলিত বাক্যের উদ্দেশ্য অর্থাৎ কর্তার জন্য নির্ধারিত অবস্থান অধিকার করে, কিন্তু এই পরিবর্তন একান্তই অস্বাভাবিক স্তরের। অর্থতাত্ত্বিক স্তরে বাক্যস্থিত পদ হিসেবে তার ভূমিকার পরিবর্তন হয় না। উদ্দেশ্য আর কর্তা এই দুটি বিষয় যে এক নয়, এই বিষয়টিও খেয়াল রাখা প্রয়োজন। উদ্দেশ্য প্রকৃতপক্ষে বাক্যের অন্তর্গত একটি নির্দিষ্ট আসন; কর্তৃবাচ্য-সম্বলিত বাক্যে যা কর্তার জন্য নির্দিষ্ট। কর্মবাচ্য-সম্বলিত বাক্যে উদ্দেশ্যের আসনটি কর্মপদের জন্য সংরক্ষিত।

উপরে দেওয়া কর্মবাচ্য এবং ভাববাচ্যের উদাহরণগুলি লক্ষ্য করলে দেখা যায়, এই দুই প্রকার বাচ্যেই ক্রিয়াপদের বাহ্যিক অবয়ব প্রায় একই রকম। প্রবাল দাশগুপ্ত তাঁর “ভাষার আকৃত চেহারা” (২০২৫) গ্রন্থের বিভক্তি আর কারকের মানচিত্র পড়তে শেখা প্রবন্ধে মন্তব্য করেছেন- “এমন কোনো ভাষা নেই যেখানে কর্মবাচ্য আর ভাববাচ্য দুটোই আছে অথচ এ দুই বাচ্যে একইরকম ক্রিয়াপদ ব্যবহৃত হয় না। ভাববাচ্য আর কর্মবাচ্য দুই ক্ষেত্রেই অস্বাভাবিক স্তরে কর্তা ঐচ্ছিক। দুটি ক্ষেত্রেই কর্তা প্রান্তিক হয়ে পড়ে এবং তাদের বিভক্তির (যা আদপে সম্বন্ধপদের বিভক্তি) নির্দেশ করে যে তারা আর স্বীকৃত কারকসম্পর্কগুলি পরিগ্রহণের উপযুক্ত নয়।

৬। বাচ্য পরিবর্তনে বাক্যস্থিত সাংগঠনিক উপাদানগুলির ভূমিকা

এখনও পর্যন্ত বাংলা বাচ্যের প্রকার এবং বাক্যস্থিত ক্রিয়াপদ ও বিশেষ্যপদসমূহের রূপ-অস্বাভাবিক বৈশিষ্ট্যের পরিবর্তনের সাপেক্ষে বাচ্য-বিচারের প্রক্রিয়াটি আলোচিত হয়েছে। এই আলোচনায় যে বিষয়টি স্পষ্ট হয় তা হল, বাচ্যের নির্ধারণে বাক্যের সাংগঠনিক উপাদান অর্থাৎ বিশেষ্য ও ক্রিয়াপদের রূপ-অস্বাভাবিক পরিবর্তনই প্রধান হয়ে ওঠে। কোনও একটি বিশেষ কর্তৃবাচ্য-সম্বলিত বাক্যের কর্মবাচ্য অথবা ভাববাচ্যে রূপান্তরনের প্রক্রিয়ায় ক্রিয়াপদের ভূমিকাই প্রধান। আমরা যদি পুনরায় দুটি উদাহরণ নিই

৯।	কর্তৃ-বাচ্য (Active Voice)			
	আমি	তোমাকে	বইটা	দিয়েছি
	I.NOM	2.ACC	book.CLF.ACC	give.PERF.PRS.1
	I have given the book to you			

১০।	কর্ম-বাচ্য (Passive Voice, not applicable to the utterances with intransitive verbs)			
	তোমাকে	বইটা	দেওয়া	হয়েছে
	2.ACC	fact.CLF.ACC	inform-NMLZ	be.PERF.PRS.3
	The book has been given to you (by me)			

১১।	ভাব-বাচ্য (neuter/ intransitive passive/ impersonal voice applicable to the utterances with intransitive verbs)		
	তার	ঘুম	হয়েছে
	3.GEN	sleep.NMLZ	be.PERF.PRS.3
	(The event of) sleeping has happened to him (neuter/impersonal voice)		

কর্তৃবাচ্য থেকে কর্মবাচ্যে পরিবর্তনের সময় ক্রিয়াপদের রূপ পরিবর্তন (দিয়েছি> দেওয়া হয়েছে) নির্ভর করে “দেওয়া” এই ক্রিয়াজাত বিশেষ্যটির উপর, যা আবার √দে ধাতুর সঙ্গে -আ প্রত্যয় যোগে গঠিত হয়। এই ক্রিয়াজাত বিশেষ্যটির সঙ্গে ক্রিয়ার কাল, প্রকার এবং পুরুষ-সূচক কোনও প্রত্যয় ও বিভক্তি যুক্ত হতে পারে না এবং এর সঙ্গে নন-ফাইনাইট বা অসমাপিকা ক্রিয়াপদের ভাব জড়িত থাকে। এই অবস্থায় তা ক্রিয়াপদের কার্য (activity) না বুঝিয়ে ক্রিয়ার দশা (state of an action) বোঝায়। ১০ নং উদাহরণের কর্মবাচ্য-সম্বলিত বাক্যের ক্রিয়াজাত বিশেষ্য “দেওয়া” তাই “state of being given” বোঝায়।

এবার অসমাপিকা ক্রিয়াপদের ভাবযুক্ত ওই ক্রিয়াজাত বিশেষ্যপদের (“দেওয়া”) একটি সমাপিকা ক্রিয়ার প্রত্যাশা তৈরি হয়, যা ক্রিয়ার কাল, প্রকার এবং পুরুষ-সূচক বৈশিষ্ট্যগুলিকে বহন করবে। ১০ নং বাক্যের (কর্মবাচ্য) “হয়েছে” সহায়ক ক্রিয়াপদটি এই সমাপিকা ক্রিয়ার ভূমিকা পালন করে। ক্রিয়াজাত বিশেষ্যপদ এবং সমাপিকা ক্রিয়াপদের মিলিত জোট কর্মবাচ্যের বাক্যে একটি কর্মকে উদ্দেশ্যের অবস্থানে প্রত্যাশা করে।

ক্রিয়াপদের চেহারায় কর্তার কর্তৃত্বের সুস্পষ্ট আভাস থাকলে একমাত্র তখনই তাকে কর্তৃবাচ্যের ক্রিয়াপদ হিসেবে স্বীকার করা চলে। কর্তৃবাচ্যের উদাহরণে আমি” সুস্পষ্ট কর্তা, এবং “বলেছিলাম” ক্রিয়াপদে উক্ত কর্তার পুরুষের প্রতিফলনই সেই কর্তৃত্বকে ফুটিয়ে তুলেছে। অপরপক্ষে, অকর্মক ক্রিয়া “ঘুমিয়ে পড়া”র (উদাহরণ ৩) উপর যেহেতু কর্তৃত্বসূচক নিয়ন্ত্রণ কখনও সম্ভব নয়, তাই এই ক্রিয়াপদের সঙ্গে সংশ্লিষ্ট অর্থাত্মিক ভূমিকাটি কর্তা বা

"এজেন্ট" এর নয়, বরং "থিম" বা "পেশেন্ট" এর³, ক্রিয়ার ব্যাপার প্রধানরূপে যার উপর প্রভাব বিস্তার করে। যেহেতু "ঘুমোনো" ক্রিয়ার উপর কর্তার কোনও নিয়ন্ত্রণ নেই এবং উক্ত ক্রিয়ার ফল সরাসরি "পেশেন্ট" অর্থতাত্ত্বিক ভূমিকায়ুক্ত কর্তার উপর বর্তায়, তাই ৩ নং উদাহরণে ভাববাচ্য-সম্বলিত বাক্যটির পরিবর্তিত ক্রিয়ারূপ "ঘুম হয়েছে"-তে "নিষ্ক্রিয়" কর্তার প্রতিফলন ঘটে না।

৭। বাংলা-বাচ্যের প্রয়োগতত্ত্ব

এখন পর্যন্ত বাচ্যকে একটি বিশুদ্ধ রূপ-অন্বয়তাত্ত্বিক বিষয় হিসেবে গণ্য করা হলেও কথোপকথনের সঙ্গে সংশ্লিষ্ট বিষয়গুলির নির্ধারণ ও নিয়ন্ত্রণে তার একটি বিশিষ্ট ভূমিকা রয়েছে। বাচ্যের স্বীকৃত প্রকারভেদগুলি প্রকৃতপক্ষে কোনও বিশেষ কথোপকথনের প্রতিবেশে বক্তার একটি সুনির্দিষ্ট চিন্তনকে শ্রোতার নিকট বোধগম্যরূপে জ্ঞাপন করার বিকল্প পথগুলির সম্মান দেয়। বক্তা কেন এই বিকল্প পথ অনুসন্ধান করে, তার পিছনে কিছু বৌদ্ধিক (cognitive) কারণ বর্তমান। কথোপকথনের সময় বক্তা শ্রোতার কাছে কোনও বিশেষ তথ্যের অবতারণা করতে পারে, আবার কোনও তথ্য ইচ্ছাকৃত/অনিচ্ছাকৃতভাবে গোপন রাখতে পারে। শ্রোতার নিকট কোনও তথ্য কোন বিশেষ মাত্রায় উপস্থাপিত হবে, অথবা আদৌ সেই তথ্য উপস্থাপনের প্রয়োজন আছে কি না, সেই বিষয়গুলি বিবেচনা করে বক্তা কোনও ভাষার স্বীকৃত বাচ্যগুলির মধ্যে নির্দিষ্ট একটিকে বেছে নিতে পারেন। এই বেছে নেওয়ার প্রক্রিয়ায় বক্তার সহায়ক হয়ে ওঠে গ্রাইস-প্রস্তাবিত কো-অপারেটিভ প্রিন্সিপল এবং ৪টি ম্যাক্সিম- কোয়ালিটি, কোয়ান্টিটি, রিলেশন ও ম্যানার।

কোঅপারেটিভ প্রিন্সিপল বক্তাকে একটি বিশেষ কথোপকথনের পরিস্থিতিতে যতোটুকু বলা প্রয়োজন তার বেশি না উচ্চারণ করার স্বাধীনতা দেয়। কোয়ালিটি ম্যাক্সিম বক্তাকে সত্য উপস্থানের (অর্থাৎ মিথ্যা এবং প্রামাণ্যতারহিত বিষয় না উপস্থাপনের) স্বাধীনতা দেয়। কোয়ান্টিটি ম্যাক্সিমের অধীনে বক্তা তাঁর বক্তব্যকে সঠিক মাত্রায় তথ্য-সমৃদ্ধ করে তুলতে পারেন। রিলেশন ম্যাক্সিমের অধীনে বক্তা তাঁর উপস্থাপিত বক্তব্যকে কথোপকথনের গতিপ্রকৃতির সঙ্গে সাযুজ্যপূর্ণ ও প্রাসঙ্গিক করে তুলতে পারেন। ম্যানার ম্যাক্সিমটি বক্তার বক্তব্যকে অস্পষ্টতা ও দ্ব্যর্থকতা-মুক্ত রূপে এবং বিষয়ের ক্রমানুযায়ী, যথাসম্ভব সংক্ষিপ্ত আকারে উপস্থাপনের সুযোগ করে দেয়।

কথোপকথনের সময় বক্তা-উচ্চারিত বিশেষ কোনও অংশ অর্থাৎ utterance এর কর্তৃবাচ্য এবং কর্ম/ভাববাচ্যের রূপভেদগুলির প্রয়োগতাত্ত্বিক ব্যাখ্যা অনুসন্ধান সংক্রান্ত আলোচনা কতকগুলি বৈপরীত্যসূচক ধারণার নিরিখে করা হয়। কর্মকার (২০২৫) utterance-এর বাচ্য-সংক্রান্ত এসব বৈপরীত্যসূচক ধারণাগুলিকে নিম্নলিখিতভাবে চিহ্নিত করেছেন

১২।	Dimensions of active vs. passive uses of an utterance
ক।	agency and responsibility
খ।	Focus on action vs. outcome
গ।	formality vs. politeness
ঘ।	ambiguity vs. obfuscation

আমরা যদি পুনরায় কর্তৃবাচ্য ও কর্মবাচ্যের দুটি নতুন উদাহরণের দিকে তাকাই

১৩।	আমি	বইটা	লিখেছি
	I.NOM=Agent	book.CLF.ACC=patient	write.PERF.PRS.1

³ কর্তৃবাচ্যে অকর্মক ক্রিয়াপদের সঙ্গে সংশ্লিষ্ট অর্থতাত্ত্বিক ভূমিকাটি এজেন্ট ("সে নাচছে") বা পেশেন্ট/থিম ("সে ঘুমোচ্ছে") হতে পারে। প্রথম ক্ষেত্রে ক্রিয়ার ঘটনার উপর কর্তার সম্পূর্ণ নিয়ন্ত্রণ থাকলেও দ্বিতীয় ক্ষেত্রে ক্রিয়াটি কর্তার নিয়ন্ত্রণে থাকে না। অকর্মক ক্রিয়াপদযুক্ত কর্তৃবাচ্যের বাক্য ভাববাচ্যে রূপান্তরিত হলে ক্রিয়ার ব্যাপারি মুখ্য হয়ে ওঠে, কর্তার নিয়ন্ত্রণ খর্ব হয়।

	I have written the book (Active voice)		
১৪।	বইটা	লেখা	হয়েছে
	book.CLF.ACC= _{patient}	write.NMLZ	be.PERF.PRS.3
	The book has been written (Passive Voice, not applicable to the utterances with intransitive verbs)		

আমরা দেখছি, কর্তৃবাচ্যের বাক্যে (১২ নং) ক্রিয়ার ঘটনা যিনি সক্রিয়ভাবে ঘটচ্ছেন অর্থাৎ এজেন্ট সুস্পষ্টভাবে নির্দেশিত হলেও কর্মবাচ্যের বাক্যে (১৩ নং) এজেন্ট সম্পর্কে সরাসরি কিছু উল্লেখ করা হচ্ছে না। এক্ষেত্রে বক্তা নিজে বই লেখার কাজটি সম্পন্ন করলেও শ্রোতার কাছে ওই বিশেষ তথ্যের অবতারণা করা অপয়োজনীয় বলে মনে করায় ওই তথ্যটিকে সরিয়ে কর্ম অর্থাৎ "বই"কে সামনে এনেছেন। agency and responsibility অর্থাৎ সক্রিয়তা ও দায় এর বিষয়টি ১২ নং বাক্যে আবশ্যিকরূপে সংযোজিত হওয়ায় এবং ১৩ নং বাক্যে তা না হওয়ায় আপাতদৃষ্টিতে মনে হতে পারে যে কর্মবাচ্যের বাক্যে গ্রাইসীয় কোঅপারেটিভ প্রিন্সিপল এবং ম্যাক্সিমগুলি মান্যতা পায়নি। কিন্তু আদতে বিষয়টি তা নয়।

বক্তা কর্তৃক বিকল্প বাচ্যের অনুসন্ধানের মাধ্যমে আসলে বক্তা বিশেষ কোনও তথ্যের প্রতি শ্রোতার দৃষ্টি আকর্ষণের কাজটিও করে থাকেন। বাচ্যের পরিবর্তন আসলে ক্রিয়াপদের কার্য (action) অথবা দশা (state)- কোন অবস্থাটির প্রতি গুরুত্ব আরোপিত হবে সেই বিষয়টিকেও নির্দেশ করে। ১২ নং অর্থাৎ কর্তৃবাচ্যের উদাহরণে কর্তার কার্যনির্বাহীর ভূমিকাটি এবং ক্রিয়াপদের কার্য (অর্থাৎ "লেখা"র প্রক্রিয়া) প্রধান ভূমিকা পালন করলেও ১৩ নং বাক্য অর্থাৎ কর্মবাচ্যের উদাহরণে √লেখ ধাতুর সঙ্গে -আ প্রত্যয় যোগে বিশেষ্যায়নের কারণে তা ক্রিয়াপদের একটি বিশেষ দশা (state) কে নির্দেশ করেছে। এখানে যেন "লেখা" ক্রিয়াপদটি "লিখন" প্রক্রিয়ার পরিবর্তে ওই ক্রিয়ার ফলাফলের প্রতি শ্রোতার মনোযোগ আকর্ষণ করা হয়েছে। ফলে কর্মবাচ্যের বাক্যটিকে "বইটা লেখা হয়েছে" এর পরিবর্তে "বইটি লেখার প্রক্রিয়াটি সম্পন্ন হয়েছে", এভাবে ভাবা যেতে পারে।

বক্তার মারফৎ ক্রিয়াপদের কার্যের (action) পরিবর্তে দশার (state) প্রতি শ্রোতার মনোযোগ আকর্ষণ করার বিষয়টিই কার্য-সম্পাদনকারী অর্থাৎ এজেন্ট এর ভূমিকাটি ঐচ্ছিক হয়ে পড়ার মূল কারণ। ইচ্ছাকৃতভাবে কোনও তথ্যকে অস্পষ্ট এবং শ্রোতার বোধগম্যতার পক্ষে দুরূহ করে তোলার উদ্দেশ্যেই কর্মবাচ্য অথবা ভাববাচ্যের ব্যবহার হয়। মূল বক্তব্যবিষয় থেকে বক্তার কোনও বিশেষ তথ্যকে সরিয়ে নেওয়ার বিষয়টি হর্ন-প্রস্তাবিত Q প্রিন্সিপল⁴ এবং R প্রিন্সিপল⁵ দিয়ে ব্যাখ্যা করা যায়, যা জিফ-প্রস্তাবিত Auditor's Economy এবং Speaker's Economyর ধারণার বাস্তবায়িত রূপ। এই দুইপ্রকার ইকোনমি বক্তা কর্তৃক ন্যূনতম-সংখ্যক অর্থাৎ আবশ্যিকের চেয়ে বেশি শব্দ ব্যবহার না করে (জিফের Speaker's Economy- minimization of linguistic form- হর্নের R প্রিন্সিপল) শ্রোতার কাছে সর্বোচ্চ মাত্রায় তথ্যজ্ঞাপন (জিফের Auditor's Economy- maximization of the informational content- হর্নের Q প্রিন্সিপল) সুনিশ্চিত করে। এই দুই শর্তনির্মিত তাত্ত্বিক ভিত্তির উপর নির্ভর করে বক্তা যখন কর্তৃবাচ্যের ("আমি বইটা লিখেছি") এর পরিবর্তে অপেক্ষাকৃত জটিল ক্রিয়ারূপবিশিষ্ট কর্মবাচ্যের বিকল্পটি ("বইটা লেখা হয়েছে") বেছে নিচ্ছেন, তখন বক্তার প্রাগম্যাটিক লেবার ডিভিশন বা প্রয়োগতাত্ত্বিক শ্রম বিভাজনের প্রচেষ্টাকে বিবেচনা করতে হবে। অর্থাৎ এই বিকল্প বাচ্যের চয়নের মাধ্যমে বক্তা শ্রোতার কাছে কে বইটা লিখেছে- এই তথ্যের পরিবর্তে "বইটি লেখার প্রক্রিয়াটি সম্পন্ন হয়েছে" এই বার্তাটিই বিশেষভাবে পৌঁছে দিতে চাইছেন, যা কর্তৃবাচ্য ব্যবহার করে সম্ভব নয়।

উৎস-নির্দেশ

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⁴ Make your contribution sufficient; Say as much as you can (given the R-principle).

⁵ Make your contribution necessary; Say no more than you must (given the Q-principle)

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Semantic Analysis of Manipuri Motion Verbs

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ABSTRACT

The present paper attempts to investigate how the Manipuri motion verbs are working from the perspective of semantics. The eight Manipuri motion verbs i.e. ka 'go up, climb', kum 'come down', cət 'go', lak 'come', cəŋ 'enter', t^hok 'go out, leave', ta 'fall', and lal 'cross' are used to indicate the movement of both concrete and abstract entities in both spatial and non-spatial domains. They are again used with their extended meaning derived from the basic meaning. All these happen with human conceptualizations. It mainly focuses on the semantic interpretations of these eight motion verbs.

Introduction

Manipuri (Ethnologue ISO 639-3: mni) which is officially known as 'Meitei' is the first language of the people in the valley of Manipur and the second language of those for whom Manipuri is not their mother tongue. It is one of the Tibeto-Burman languages of the Sino-Tibetan family which is placed in the Kuki-Chin proper separately by Grierson (1904), and in the Meitei branch of the Kukish section by Shafer (1974). Bradley (1997:29) put Manipuri under the Kuki-Chin subgroup of Tibeto-Burman Languages. Meithei, the state language of Manipur, shows significant points of contact with Kachin as well as with Kuki-Naga, though its affinities are predominantly with the latter (Benedict 1972:10). It is also spoken in some other places of India like Assam, Tripura and in some countries such as Myanmar and Bangladesh. Manipuri is the only medium of communication among the speakers of the different tribal languages that mainly inhabit the hilly areas of Manipur. So, it is a lingua-franca of the state.

The natural language, in general, provides us many lexical items which carry the sense of motion. The movement of something i.e. the theme is indicated by the lexical items which are known as motion verbs. Chinese has different motion verbs such as lai 'come', qo 'go', shang 'ascend, up', xia 'descend, down', jin 'enter, in' chu 'exit, out' which can be used with their extended meanings (Yin, Hui, 2011). In Vietnamese there are different motion verbs indicating the movement of the argument in a sentence which are studied in terms of the semantic components. Likewise, Manipuri also has different motion verbs out of which eighth motion verbs i.e. ka 'go up, climb', kum 'come down', cət 'go', lak 'come', cəŋ 'enter', t^hok 'go out/leave', ta 'fall', and lal 'cross' are discussed in the present paper. They are sometimes used with their extended meanings which are derived from the basic meaning or interpretation of the motion verbs. They are used with human conceptualization. Based on their semantic interpretations, they are working as a part of human language in indicating the movement of the different arguments including human being in terms of where a movement starts and where it will reach. All these concepts of movement are revealed through the use of the motion verbs.

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Research Objectives

The present paper is attempting to explore how the eight Manipuri motion verbs are used to indicate the movement of both concrete entities and abstract ideas in both spatial and non-spatial domains and how they are again used with their extended meanings derived from the basic meaning. It also aims to find out the way these eight motion verbs are used metaphorically which people need their conceptualization to find the proper semantic interpretation of the motion verbs of Manipuri.

Theoretical Background

Many works on semantic analysis of motion verbs in different languages I had studied so far gave me the idea of how the motion verbs are working to show the movement of some concrete objects and abstract ideas and also how the motion verbs are used metaphorically with human conceptualization. Extension of motion verbs to indicate past or future time is based on the metaphor: Passage of time is movement in space, which is a subtype of metaphor Time is space, (Traugott, 1988) on our conceptualization of time according to which the past moves away from us and future moves towards us (Lichtenberk, 1991).

Basic and extended meaning of motion verbs

Manipuri motion verbs have their basic interpretations and implications and some of them have been used with their extended meanings. The extended meanings of the motion verbs can appear with human conceptualization. The meanings of linguistic expressions are not mere reflections of the properties of phenomena; rather they reflect our conceptualization of the phenomena, and in that sense they are subjective (Litchtenberk, 1991: 477).

The basic meanings of the motion verbs have a few essential semantic components like deictic center, movement, source, destination and path. All the eight motion verbs denote the physical movement through space as follows:

1. *t^hoibənə* *u* *kai*
t^hoibə-nə *u* *ka-i*
 Thoiba-ERG tree climb-DECL
 'Thoiba climbs the tree.'

2. *tomba* *u-dəgi* *kum-le*
 Tomba tree-ABL come down-PFV
 'Tomba has come down from the tree.'

Here, the two motion verbs *ka* and *kum* are used to show the movement through space. Besides, they are denoting the direction to which the themes are moving. In the example (1) the motion verb *ka* is denoting the movement towards the upward direction whereas in example (2) the motion verb *kum* is used to indicate the movement of the theme towards the downward direction. So, both of these motion verbs are used to show the movement in vertical directions.

The motion verbs *ka* and *kum* can be used with the different morphemes like *-k^hət* which is glossed as 'up' and *-t^hə* glossed as 'down' to indicate the different movement in vertical directions. So, the motion verb *kais* suffixed with the morpheme *-k^hət* to show the movement towards the upward direction and the motion verb *kum* is suffixed with the morpheme *-t^hə* to indicate the movement towards the downward direction.

3. *jum^hək-tə* *ka-k^hət-lu*
 roof of house-LOC climb-UP-IMP
 ‘Climb to the roof of the house.’
4. *ciŋt^hək-təgi* *kum-t^hə-ro*
 top of the hill-ABL climb-DOWN-IMP
 ‘Climb down from the top of the hill.’

What we can notice here in the above given examples is that even if both the motion verbs have their own complete interpretations, they are supplemented by the two morphemes i.e. *k^hət* ‘up’ and *t^hə* ‘down’ to indicate the movement in vertical directions. So, it can also be seen that both the motion verbs can be used with or without the two morphemes. In the example (1) and (2) the two motion verbs are used without the two morphemes but they can show the movement in vertical directions.

The motion verb *ka* is again used to indicate the idea of being promoted i.e. when a person who is an employee is promoted from the present position to a higher position in rank or status. Here, the motion verb is used with the extended meaning of its basic meaning. How the motion verb is used with its extended meaning to show the idea of being promoted is being described in the following example.

5. *gopal-du* *dairektər-də* *p^həm* *ka-re*
 Gopal-DEM Director-LOC post climb-PFV
 ‘Gopal has been promoted to Director.’

Here, the extended meaning of *ka* is ‘promote’ which is used to give the idea of getting promotion to a higher rank.

The motion verb *ka* and *kum* are again used to indicate the movement of the theme horizontally. When they are used to indicate horizontal movement, they give the idea of moving towards a higher place or position. In the domain of horizontal movement, *ka* means ‘going up’ and *kum* means ‘going down’. This is explained in the following examples.

6. *əi* *jum* *ka-re*
 1SG house going back-PFV
 ‘I have gone back home.’
7. *əi* *ləubuk* *kum-le*
 1SG paddy field go-PFV
 ‘I have gone to paddy field.’

While analyzing the idea or sense given by *ka* and *kum* in the example (6) and (7), the basic meaning of moving in a specific direction is seen. In the example (6) when the theme is supposed to be in the paddy field and is going back home after finishing the work, the theme assumes that his house is to be in a higher location than that of the paddy field. That’s why; the motion verb *ka* is used. In the case of the example (7), the theme is supposed to be in a higher location i.e. his house and now he is going to move towards a lower location i.e. paddy field. With this conceptualization, the two motion verbs *ka* and *kum* in the above two examples of (6) and (7) are used to show the horizontal movement.

8. *əi* *kəit^hel* *ka-gəni*

1SG market go-IRR
 'I will go to market.'

9. *əi jum kum-le*
 1SG house go-PFV
 'I have gone to home.'

In the case of the examples (8) and (9), it has been seen that when the theme is moving towards the market in (8) the motion verb *ka* is again used because the market is supposed to be in a higher place or location spatially. Likewise in the case of the example (9) when the theme is moving towards home from the market the motion verb *kum* is used because the house is supposed to be spatially in a lower place or location than the market.

While discussing the movement with the motion verbs *ka* and *kum* in horizontal directions, both of them are used with the sense of moving to or from an institution or office. If someone is moving to an institution or office the motion verb *ka* is used indicating he/she is moving to his/her destination or endpoint. In the case of moving from someone's institution or office the motion verb *kum* is used indicating he/she is moving from the place or the location.

10. *tomba ηəsi op^his ka-gəni*
 Tomba today office climb up-IRR
 'Tomba is going to office today.'

11. *tomba jum-də kum-k^hə-re*
 Tomba home-LOC climb down-DEF-PFV
 'Tomba had gone home.'

In the example (10) and (11), it can be seen that when *tomba* in the example (10) is going to the office the motion verb *ka* is used to show the movement towards his office in horizontal directions. In the case of the example (11), when *tomba* is going back home from his office the motion verb *kum* is used to show the movement towards his home from office in horizontal directions.

The motion verb *cət* is used to give the sense of moving away from the deictic center whereas the motion verb *lak* is of moving towards the deictic center. This is minutely discussed in the following examples.

12. *ram iskol cət-kəni*
 Ram school go-IRR
 'Ram will go to school.'

13. *əi lak-kəni*
 1SG come-IRR
 'I will come.'

14. *tombə ηəsi əi-gi jum-də lak-kəni*
 Tomba today 1SG-GEN house-LOC come-IRR
 'Tomba will come to my house today.'

In the example (12), the theme *ram* is moving from a deictic center which may be home towards his school. So, in order to show the movement away from the deictic center, the motion verb *cət*

is used. In the case of the example (13), the theme is also moving towards a destination while the theme is to be away from the deictic center. That's why the motion verb *lak* is used. Contrarily, in the case of example (14), the theme *tombə* is moving towards the destination oriented towards the speaker i.e. *əigi jum* 'my house'. So, *lak* is again used with the sense of moving towards the destination. The motion verbs *cət* and *lak* are now used to show the movement of something though the path that is abstract. It can be further explained with the following examples.

15. *pəisa cət-kʰə-re*
 money go-DEF-PFV
 'Money had been debited from bank account.'

16. *mesej cət-kʰə-re*
 message go-DEF-PFV
 'The message had gone.'

In the example (15), the motion verb *cət* is used to show the transferring of money as the movement of it towards the bank account of the receiver. So, the sender's bank account is the deictic center from where money moves away to the receiver's account. In the case of example (16), the motion verb *cət* is again used to show that the message has been sent from the sender towards the receiver of the message.

17. *pəisa lak-le*
 money come-PFV
 'Money has been received.'

18. *mesej lak-le*
 message come-PFV
 'The message has been received.'

In the example (17) another use of the motion verb *lak* is seen indicating the receiving of money as moving through the path which is abstract. In the case of the example (18), the motion verb *lak* is again used to show the receiving of a message by the receiver. In one sense, the message is moving away from the deictic center of the sender and moving towards the destination that is the receiver of the message.

The motion verbs *cət* and *lak* have their extended meaning shifting from the spatial domain to the temporal domain. Extension of motion verbs to indicate past or future time is based on the metaphor: Passage of time is movement in space, which is a subtype of metaphor Time is space, (Traugott, 1988) on our conceptualization of time according to which the past moves away from us and future moves towards us (Lichtenberk, 1991). In Mainpuri also the past and present time are represented with the motion verbs *cət* and *lak*. How the motion verbs *cət* and *lak* are used to indicate the past and future time is illustrated with the following examples.

19. *cət-kʰə-rə-bə matəm*
 go-DEF-DEIC-NMLZ time
 'past time'

20. *lak-kə-də-bə cəhi*
 come-IRR-PART-NMLZ year
 'the coming year'

In the above given two examples (19) and (20) it can be seen that the motion verb *cət* used in spatial domain is now used in temporal domain to indicate the time which moves away in (19) and in the case of (20) the motion verb *lak* is also again used in temporal domain to indicate the year to come.

Moreover, the movement may be towards the inside or outside of something in the spatial domain. For this matter, another two motion verbs i.e. *cəŋ* 'enter', *tʰok* 'go out' which have the semantic components like deictic center, movement, source, destination and path.

The motion verb *cəŋ* is used to indicate the movement of the theme towards a destination i.e. inside of something. So, this movement originates from the deictic center which is outside of something and moves through a path towards its destination. This is illustrated with the following examples.

21. *ma-di* *jum-də* *cəŋ-kʰə-re*
 3SG-DET house-LOC enter-DEF-PFV
 'He had gone inside the house.'

22. *ma-di* *jum-dəgi* *tʰok-kʰə-re*
 3SG-DET house-ABL go out-DEF-PFV
 'He had gone out of the house.'

From the above two examples it can be seen that the motion verb *cəŋ* in (21) is used to indicate the movement of the theme inside the house from somewhere outside the house whereas the motion verb *tʰok* in (22) is used to indicate the movement of the theme outside the house.

The motion verb *cəŋ* which is used to indicate the movement of the concrete entities is now used to show the movement of the abstract entities. It is illustrated in the following example.

23. *pəisa* *cəŋ-lək-le*
 money enter-DEIC-PFV
 'Money has been credited to my account.'

Here the motion verb *cəŋ* is now used to credit money to one's bank account. This is something which we cannot see the path of movement and it's happening in terms of something abstract.

Now the motion verb *tʰok* is also used with an extension of the release of an office order or notice. So, this is used to announce something from the office to all the concerned. The office will be the source of movement and the concerned members will be the destination. This is illustrated in the example below.

24. *tʰəbək-ki* *ordər* *tʰok-kʰə-re*
 employment-GEN order release-DEF-PFV
 'The order for the employment had been released.'

The motion verb *tʰok* in the above example is now used to make an announcement to all the concerned members. This is something working beyond the spatial domain. Even though there is no physical movement it is still used with the extended meaning of the motion verb *tʰok*.

The motion verb *ta* is used to indicate the movement in vertical direction which is moving from the higher level to lower level. It can function in both spatial and non-spatial domains. It can be used to indicate the movement of both concrete objects and abstract ideas or concepts. This can be illustrated with the following examples.

25. *noŋ ta-re*
rain fall-PFV
'It has rained.'

26. *isiŋ məjeŋ ta-re*
water level fall-PFV
'The water level has decreased.'

27. *məntri p^həŋ ta-re*
minister post fall-PFV
'The ministerial post has been decreased.'

In the example (25) and (26) the motion verb *ta* is used to indicate the movement of the concrete object rain and water from the higher position or location to the lower location or position. In the case of (27) *ta* is again used to show the movement of abstract ideas of ministerial post. So, *ta* is used to indicate the reducing of one's ministerial post.

The motion verb *lal* is used to indicate the movement in horizontal direction i.e. moving from one side of something to the other. It involves a movement which is illustrated in the following example.

28. *əi t^hoŋ lal-le*
1SG bridge cross-PFV
'I have crossed the bridge.'

29. *mək^hoi sorok lal-le*
1PL road cross-PFV
'They have crossed the road.'

Here, the motion verb *lal* in example (28) is used to indicate the movement of a concrete entity i.e. a person moving from one side of the bridge to another side and the moving of the theme *mək^hoi* in example (29) from one side the road to another side of it.

Conclusion

The eight Manipuri motion verbs which are studied in the present paper are mainly used to indicate the movement of both concrete and abstract entities. They are working both in the spatial and non-spatial domains. Some of them have been used with their extended meanings based on their basic interpretations. The extended meanings of the motion verbs are used with human conceptualization. All of them have their semantic properties through which they can easily indicate the different movements from different directions.

Abbreviations

1	First person	GEN	Genitive
3	Third person	IMP	Imperative
ABL	Ablative	IRR	Irrealis
DECL	Declarative	LOC	Locative
DEF	Definitive	NMLZ	Nominalizer
DEM	Demonstrative	PART	Particularization
DEIC	Deictic	PFV	Perfective

DET	Determiner	PL	Plural
ERG	Ergative	SG	Singular

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